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T O U R
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I R E L A N D:
WITH
GENERAL OBSERVATIONS
ON THE
PRESENT STATE
OF THAT
K I N G D O M:

MADE IN
THE YEARS 1776, 1777, and 1778. AND
BROUGHT DOWN TO THE END OF 1779.

Nobis in arto & inglorius labor.——TACIT.

BY ARTHUR YOUNG, ESQ. F. R. S.

Honorary Member of the Societies of DUBLIN, YORK and MANCHESTER;
the Imperial Society of Agriculture at PETERSBURGH; the Oecono-
mical Society of BERNE; the Palatine Academy of Agriculture,
at MANHEIM, and the Physical Society at ZURICH.

THE SECOND EDITION.

IN TWO VOLUMES.

VOL. I.

L O N D O N:
PRINTED BY H. GOLDNEY,
FOR T. CADELL, IN THE STRAND.

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GENERAL OBSERVATIONS

Р. Р. Е. С. И. М. Т. О. Т. А. Т. Е.

KNIGHTS OF THE

**MUSEVM
BRITANNICVM**

By ARTHUR YOUNG Esq. F.R.S.

THE SECOND EDITION

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MODERN

PRINTED BY H. GOLDREY,
FOR T. CARRILL, IN THE STRAND.

P R E F A C E.

NUMEROUS as the publications on husbandry have become in almost every part of Europe, few of them let us into its actual state in any country. Authors seem to have disdained recording the practice, so much have they been employed in prescribing alterations. Several reasons may be assigned for this omission: to describe the agriculture of a province, it is necessary to travel into it, and among the writers who have been most voluminous upon this subject, the greater number have been confined to their own farms,—perhaps to their fire sides. It was impossible for them to have given detailed descriptions of what they had never seen.

THERE is also a greater temptation to the production of such didactic works as are most usual in agriculture, than to the less entertaining minutiae of common management. The man who composes a piece for instructing others how to conduct their lands, generally includes all sorts of soils, situations, and circumstances; his views are great, his work comprehensive, round, and complete, and every reader finds something that suits him. The success which has attended the *complete bodies, general treatises,*

and *dictionaries* of the subject, though compiled by men as much acquainted with astronomy, as with agriculture, must have been owing to these circumstances: as the good reception of well written, though erroneous theories, is, to *the agreeable* bearing away the palm due to *the useful* alone. But a reader who would wish to receive real information, should readily give up the pleasure of being amused for the use of being instructed; the number of such however, will always be comparatively small, and the writer who aims simply at utility, must expect his productions to give place to those of a more amusing turn. When a long course of years has proved the importance of the facts he has collected, his labours will probably have their due estimation.

THE details of common management are dry and unentertaining; nor is it easy to render them interesting by ornaments of style. The tillage with which the peasant prepares the ground; the manure with which he fertilizes it; the quantities of the seed of the several species of grain which he commits to it; and the products that repay his industry, necessarily in the recital run into chains of repetition, which tire the ear, and fatigue the imagination. Great however is the structure raised on this foundation: it may be dry, but it is important, for these are the circumstances upon which de-
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P R E F A C E. iii

pend the wealth, prosperity, and power of nations. The minutiae of the farmer's management, low, and seemingly inconsiderable as he is, are so many links of a chain which connect him with the State. Kings ought not to forget that the splendour of majesty is derived from the sweat of industrious, and too often oppressed peasants. The rapacious conqueror who destroys, and the great statesman who protects humanity, are equally indebted for their power to the care with which the farmer cultivates his fields. The monarch of these realms must know, that when he is sitting on his throne at Westminster, surrounded by nothing but state and magnificence, that the poorest, the most oppressed, the most unhappy peasant, in the remotest corner of Ireland, contributes his share to the support of the gaiety that enlivens, and the splendour that adorns the scene.

If such is the importance of these little movements in the great machine of the State, to know and to understand them, surely deserves the attention of men, who are willing to sacrifice their amusement to their information. This is in other words saying, that the state of common husbandry, in all its variations and connections ought to be well understood. Of little consequence must precepts, maxims, and directions for a better conduct

appear, unless we really know the evils that are to be remedied, and the practices that are to be condemned. Without this necessary knowledge, the recommendations of the most ingenious speculative author, must be almost useless; and the labours of the experimentalist, want much of the application which is to render his facts important. The object of every writer in rural œconomics is to make husbandry better. But before they attempt that, should they not know what it is? This idea has often made me, in reading books of agriculture, lament that the first chapter of every practical work, was not a plain detailed account of the common management in the parish or neighbourhood, where the author lived and wrote.

To render this sort of knowledge general and complete, it is necessary that every gentleman residing in the country, and practising agriculture, should write and publish an account of so much as falls within the sphere of his observation: The experience of centuries has shewn us how much this may be expected. Were it done, such journies as I have registered and published, would have been perfectly unnecessary. A man who has attended some years to husbandry in one place, would have it in his power to gain a far better and more

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P R E F A C E.

particular account of every circumstance than it is possible a traveller should procure.

THESE accounts however having no existence, such as I have more than once offered to the public, may have their use: what should chiefly induce the reader to think so, is their being taken on the spot, from the mouths of gentlemen or farmers who reside in the districts, they describe — that the accounts are however perfect, cannot be expected — they are proportionally so to the sagacity, information, and experience of the person who speaks. When my intelligence was received from a company of gentlemen, I always waited for their settling among themselves any difference of opinion before I entered the minute; and if they did not agree, took the average of the sums or quantities in question.

THE unbounded hospitality of a kingdom in which every country gentleman is by necessity a farmer, left me under very few difficulties, in gaining intelligence: but I did not trust entirely to this source, having upon most occasions common farmers summoned to assist at the consultations, the design of which was my information. Nor did I neglect opportunities of making enquiries of the cottagers, and of examining into their situation and way of living — the information I procured in this line,

I apprehend to be of consequence: in England we know pretty well the state of the poor; but their circumstances in other countries ought to be one of the first objects of a traveller's attention, since from their ease or oppression, a multitude of conclusions may be drawn relative to government, wealth, and national prosperity.

THAT the agriculture of both these islands is of the highest importance, no one will deny, and perhaps, when the present state of Europe is well considered, it will in a political light be deemed more so than ever it was at any former period. It is true we are at present in a war with France, but I must own, the period appears to me fast approaching, when all the western part of Europe will find an absolute necessity of uniting in the closest bands. If the scene which has annihilated Dantzick, was now acting at Hamburgh and Amsterdam, I do not see where the power is to be found, to prevent or revenge it. The consequence of France has been long declining, and the transfer of her exertions from the land to the sea service, may be fatal to the liberties of Europe. If even the fatal day comes, when that exertion is to be made, all her neighbours would feel it their common interest to second and support her. Much would it then be regretted, that the strength and resources of those powers should

should have been so exhausted by wars among themselves, as to be disabled in the moment when most signally wanted. Then it would appear, that France should have directed all her attention to her army, and Britain to her navy, as the best united means of resisting what Lord Chesterfield very justly terms, "new devils," arising in Europe. But from whatever quarter danger may arise to Great Britain, it much behoves her, while other powers are rising so incredibly in force, to take every means that providence permits, to strengthen herself; and that the most secure and solid way of doing this, is by carrying all the arts of cultivation in both islands, to the highest pitch of perfection that is practical, nobody will I apprehend deny.

THAT too much national attention cannot be given to agriculture, never appeared so strong as it does in the present period. The legislature of this kingdom has for a century bent all its endeavours to promote the *commercial system*. The statute-book is crowded with laws for the encouragement of manufactures, commerce, and colonies, and in some instances at the expence of the improvement of the national soil. Yet in that period only one great agricultural measure was embraced, the bounty on the export of corn, frittered down to the present system, which turns out with or with-

out, but certainly by the connivance of law, to be a constant *import scheme*, in order to reduce the prices of the earth's products, in favour of those classes whose monopolizing spirit has had the direct tendency to beggar and ruin the kingdom. Whoever considers attentively the *commercial* conduct of Great Britain, will not think there is any thing paradoxical in this assertion.

THE entire administration of the colonies has been commercial. It has been made a trader's project, and the spirit of monopoly pervaded every step of our progress in planting and rearing those settlements. They were governed by the narrow spirit of a counting-house, which in the plantation of countries formed to be the residence of great nations, neither saw nor permitted any thing better than a monopolized market. It was this spirit that shackled those countries in such commercial fetters as to render them incapable of contributing to the necessities of the general government of the empire. Had a more liberal policy been embraced, such contributions would have been early introduced, with a capability (from a free commerce) of supporting them. The commercial government gave up the advantage of all contribution for the greater profit of monopoly: it was evident that *both* could not be had, till those countries became too

too great and powerful to be forced into new and unjust habits. Nothing therefore can be more idle than to say, that this set of men, or the other administration, or that great minister, occasioned the American war. It was not the stamp act, nor the repeal of the stamp act; it was neither Lord Rockingham nor Lord North, but it was that baleful monopolizing spirit of commerce that wished to govern great nations, on the maxims of the counter. That did govern them so; and in the case of Ireland and the Indies does still govern them so. Had not the trader's system been embraced, America would, in consequence of taxation, have been long ago united with Britain; but our traders knew very well that a free commerce would follow a union.

NOR is it only in the loss of vast territories that we feel the direful effects of the monopolizing spirit. The greatest part of the national debt is owing to the two last wars, which cost us one hundred millions sterling, and arose solely from mercantile causes: that of 1740 was a war for the protection of English smugglers; and that of 1756, sprung from an apprehension that the French would divide the American market with our traders: the present, which may be as expensive before it is finished as either of the former, was owing to a determination to secure the market we had gained.

P R E F A C E.

gained. But all the wars are for markets or smuggling, or trade or manufacture. That vast debt which debilitates the kingdom, those taxes we pay for having lost thirteen provinces, and the hazard we now run of losing or ruining Ireland, are all owing to the former predilection of our government for the trading system.

I should go much beyond the line of truth to declare, that trade and manufacture are necessarily ruinous. The very contrary is my opinion; extensive manufactures, and a flourishing commerce, are the very best friends of agriculture, as I have endeavoured to shew more at large in my *Political Arithmetic*. What I would urge here is, that trade is an admirable thing; but a trading government a most pernicious one. Protect and encourage merchants and manufacturers in every exertion of their industry; but listen not to them in the legislature. They never yet were the fathers of a scheme that had not monopoly for its principle. It has been the fatality of our government to attend to them on every occasion. We are, at this moment, in the full maturity of the evils which a legislature, influenced by traders, can bring upon a country. Nor can I, without astonishment, view the commercial jealousy that has arisen in Europe in the last 50 years. Other nations have caught of us
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the commercial spirit. They have attributed the effects of the noblest and most perfect system of freedom the world has ever seen, to the *trade* of the country. Deluded mortals! Give your subjects the liberty which Englishmen enjoy, and trade will spring up one among the many luxuriant branches of that wide extended tree. LIBERTY, not trade, has been the cause of England's greatness. Commerce and all its consequences have been the *effect*, not the cause of our happiness. France has, with the same sort of folly, overlooked the simple and obvious advantage of improving her noble territory for the more precarious profits of trade: and what are the consequences? She too has hazarded those wars for commerce, which have exhausted her resources, mortgaged her revenues, and debilitated every principle of her national strength.

WHEN the present rage for monopoly (the true characteristic of the commercial system) has half beggared Europe with the thirst of wealth; and that nations have grown wiser by experience, they will, it is to be hoped, found their greatness in the full cultivation of their territories; the wealth resulting from that exertion, will remain at home, and be secure; nothing in that progress will kindle the jealousy of neighbours --- no vile monopolies --- no restrictions --- no regulating duties are wanting: perpetual

perpetual wars, heavy debts, and ruinous taxes, will not be necessary to extend and promote agriculture, inseparable as they have been from commerce.

To a philosophical eye the present conduct of commercial Europe is an inexplicable enigma. The mercantile system of England having grasped at and possessed the monopoly of the North American market, France, in the transactions which preceded the war of 1756, manifested the plainest jealousy of our power in North America: the most ill-founded jealousy, as experience has shewn, that could actuate a nation. The two countries engaged in the war upon a subject merely commercial; and it cost, between them, above an hundred millions sterling, the one to be driven out of Canada, and the other to lose America by rebellion. Is it possible that the rulers of these two kingdoms, if they had an inclination to amuse themselves with expending such a sum, had so poor a genius that they could not devise the means of doing it *at home*, in the encouragement of agriculture and arts; in inclosures, navigations, roads, harbours, the cultivation of wastes, draining marshes, raising palaces? &c.

In the Duke de Choiseul's ministry we were on the point of another commercial war, we had

had a greater trade to India than France, and in order to balance it, that kingdom was ready to expend fifty millions more. Then Spain takes commercial umbrage, at our settling with commercial views on a rock, the great products of which are seals and penguins; the affair could not cost less than five millions; but that is a trifle in the affairs of trade—For see, we are now engaged in a fresh career of commerce with America, and the whole house of Bourbon. Upon a moderate computation, France, Spain, and Britain, will each of them spend enough in it to improve three or four provinces to the highest pitch of cultivation; which instead of slaughtering three or four hundred thousand men, and leaving thrice that number of widows and orphans, would render a greater number of families happy for life, and leave a rich and increasing legacy of ease and plenty to their posterity: and all the slaughter, ruin, poverty and destruction, that is thus brought on the human species, is for the sake of commerce.

It was the commercial system that founded those colonies—commercial profits reared them—commercial avarice monopolized them—and commercial ignorance now wars to recover the possession of what is not intrinsically worth the powder and ball that are shot away in the quarrel. The same baneful commercial genius

nus influences France and Spain to exhaust their revenues, ruin their subjects, and stagnate every branch of domestic industry, for distant, ideal, and precarious commercial advantages.

BUT to return — The manufactures, commerce, and fisheries of Ireland, are objects of much importance to Great Britain, and as the information I procured concerning them, was chiefly gained on the spot, and given me without those intentions of deceiving, which are too common, when such particulars are introduced politically to the world, I believe the reader will not be sorry at my having given them a place.

THE general view of the kingdom I have given from the whole of the intelligence, will, I flatter myself, throw Ireland into that just light, in which she has not hitherto appeared. The many erroneous ideas concerning the rental, wealth, and consequence of that island, with which every book is filled that treats of it, will be here explained. The reader will find the progress of national prosperity, its present state, and the vast field of improvement which Ireland will continue, until it comes to be every thing to Britain which the warmest patriot could wish. For so happy a state to arrive, nothing is wanting but this country to change

change her policy, and cherish that industry she has hitherto seemed so anxious to shackle.

AFTER having travelled through the greatest part of the kingdom, I found, upon sitting down to give an account of those circumstances, not immediately arising from the husbandry of the country, that I was in want of many public accounts of trade, manufactures, taxes, &c. not to be procured upon a journey. I was for some time in correspondence with some friends in Dublin to gain these, but after passing near a twelvemonth in expectation, I found it would be impossible to procure the necessary papers without going thither; I accordingly went and resided nine weeks in that city, very busily employed in examining and transcribing public records and accounts, which enabled me to give such a detail of those subjects, as has not hitherto been laid before the public. I may, without exaggeration, assert, that all these objects for want of industry in those who have written concerning Ireland, have been treated in the way of guess, conjecture, and declamation, to answer particular purposes, instead of any detail of facts. Part of these enquiries may be uninteresting to those who do not reside in the country, but I am nevertheless so much convinced of their importance to England, as well as to Ireland, that I have determined to explain them as fully as I was

was able, tedious as they may appear to those who read rather for amusement, than information. Perhaps there would be no impropriety in prefixing to all the productions I venture before the public, this caution: I have been reproached for being tedious, but I profess, to treat that subject which I think (vainly perhaps) I understand, in so detailed a manner, that if my pieces were not unentertaining, they would very indifferently answer the end, to accomplish which, I have travelled, practised, and written.

HUSBANDRY is an art that has hitherto owed less to reasoning than I believe any other. I know not of any discoveries, or a single beneficial practice that has clearly flowed from this source. But every one is well acquainted with many that have been the result of experiment and registered observation. There is no people existing so backward but have some good practices to copy, as well as errors to avoid. To describe both is to give a chain of connected facts that must, in the end, prove useful to such as will read and digest them with attention and reflection: but I am ready to admit that this is a study very far from amusing. The registers of such journies, as I have employed a great deal of time and expence in making, must necessarily be exceedingly dull to those who read for pleasure: so disagreeable,

able, that they will certainly throw down the volume with as much disgust as they would tables of arithmetic. The flattering circumstance of a successful publication is not thus to be expected. The present age is much too idle to buy books that will not banish *l'ennuye* from a single hour. Success depends on amusement. The historical performances of this age and nation, which have proved so honourable to their authors, would have met with a less brilliant success, had not the charms of style rendered them as amusive as a romance. Their extreme popularity is perhaps built on rivaling, not only the authors that had before treated the same subjects, but Sir Charles Grandison and Julia. That this observation, however, when applied to books of agriculture is just, will appear from the very ill success met with by authors of capital merit, and the great sales that have attended the most miserable performances. The merit of Mr. Lisle's husbandry has, in many years, carried it but into the second edition. Mr. Hitt's treatise on husbandry has not been re-printed, and is very little known, yet there are particulars in it of more merit than half a score volumes that have been successful. Even the elegant essays on husbandry of my old and much regretted friend Mr. Harte, have not been re-printed. Proofs to which many more might be added, that the

publick reception does not always mark the merit of a book.

Any real utility that may result from this work out of Ireland, can only be from those who determine steadily to become acquainted with all the facts they can procure, in order to compare, combine, and draw conclusions from them. To men thus scientific, too many facts can never be published; and with such, I flatter myself, I shall be readily pardoned for having added so many to the number. Indeed I sometimes smile in reading performances, the authors of which think me of importance enough to do me the honour of abusing for whole pages together, at the very time that they make extremely free with information they never might have known, had my labours been wrought, like their own, at a fire-side. But while I am happy in the good opinion, and instructed in the correspondence of some of the first characters in Europe — while my writings will stand the test with such men as a Harte, a Haller, and an Artbutnot, I am perfectly indifferent to the ideas of the Moores, Shirleys, Marshals, and Wimpeys of the age.

THERE is one part of these papers which particularly demands an apology. I have ventured to recommend to the gentlemen of Ireland several courses of husbandry, as improve-

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ments upon what I found them practising, and have given directions how they should be performed. This is going a little out of my way; for it is that species of writing which I am apt to condemn. Instructions in this subject should, more than in any other, be gathered simply from the register of experiments and repeated observations: but having been requested by many gentlemen on the journey to do it, I have submitted to their opinion, rather in contradiction to my own. I have reflected attentively on the circumstances of Ireland before I drew up these recommendations; and I believe, that those who are best acquainted with the kingdom, will not think what I have proposed entirely inapplicable.

HAVING given such explanations of the design of this work as appeared necessary, there only remains to insert the names of those who were pleased to favour me with their assistance in executing it.

To the following persons only I was indebted for recommendations to Ireland:

The Earl of Shelburne.

The Dowager Lady Middleton.

Mrs. Vesey.

Edmund Burke, Esq;

Samuel Whitbread, Esq;

John Arbuthnot, Esq;

Governor Pownall,

Lord Kenmare,

John Baker Holroyd, Esq;

David Barclay, Esq;

SUCH were the small number of persons in England, who, before I went, took the trouble to interest themselves in the undertaking. As to the great body of absentees, knowing that there was not one but could contribute to my being well informed, by cards to their agents, I took the most effectual means of letting them know my intention; but except the few just named, the design was not happy enough to appear in such a light, as to induce them to contribute to it. Indeed there are too many possessors of great estates in Ireland; who wish to know nothing more of it than the remittance of their rents.

THE circumstance was rather discouraging, and I began to apprehend that I might want information; but the reception I met at Dublin immediately removed it; and the following list of those who were so obliging as to take every means of having me perfectly well informed, will shew that I was not disappointed.

The

P R E F A C E

xxi

The Earl of Harcourt, Lord Lieutenant
 Earl of Charlemount, *Dublin*
 Mr. Machpharland, *Luttrells Town*
 Right Hon. Thomas Conolly
 — Clements, Esq; *Killadoon*
 Colonel Marley, *Celbridge*
 Duke of Leinster, *Castleton*
 — Jones, Esq; *Dolleston*
 Right Hon. H. L. Rowley, *Summer Hill*
 Earl of Mornington
 Right Hon. William Burton, *Slaine Castle*
 — Jeb, Esq; *Slaine*
 Mr. Gerard, *Gibbstown*
 Earl of Beccive, *Heardfort*
 Lord Longford, *Packenham*
 Captain Johnston
 Rev. Dean Coote, *Shaen Castle*
 — Brown, Esq;
 Mr. Butler, near *Carlow*
 — Mercer, Esq; *Laughlin bridge*
 Gervas Parker Bush, Esq; *Kilsaine*
 Colonel Nun
 Earl of Courtown
 Lieut. General Cunningham, *Mount Kennedy*
 Baron Hamilton, *Ballybriggen*
 Lord Chief Baron Forster, *Cullen*
 Lord Gosfort, *Market Hill*
 His Grace the Lord Primate, *Ardmagh*
 Mr. William Macgeough, *ditto*
 Bishop of Clonsfert
 Maxwell Close, Esq;
 — Richardson, Esq;
 — Leslie, Esq; *Glaslough*
 — Workman, Esq; *Mahon*
 Right Hon. William Brownlow, *Lurgan*
 — Warren

——— Warren, *Warrenstown*
 Mr. Clibborn, *ditto*
 The Bishop of Down, *Lisburne*
 John Alexander, Esq; *Belfast*
 ——— Portis, Esq; *ditto*
 Arthur Buntin, Esq; *ditto*
 Mr. Holmes, *ditto*
 Dr. Halliday, *ditto*
 Patrick Savage, Esq; *Porta Ferry*
 ——— Ainsworth, Esq; *Strangford*
 John O'Neal, Esq; *Sbaen Castle*
 James Leslie, Esq; *Leslie Hill*
 Rev. Mr. Leslie
 Right Hon. Richard Jackson, *Coleraine*
 Robert Alexander, Esq; *Derry*
 Rev. Mr. Bernard
 Rev. Mr. Golding, *Clonleigh*
 Alexander Montgomery, Esq; *Mount Charles*
 Thomas Nesbitt, Esq;
 Sir James Caldwell, Bart. *Castle Caldwell*
 The Earl of Ross, *Belleisle*
 Lord Viscount Inniskilling, *Florence Court*
 Earl of Farnham, *Farnham*
 W. G. Newcomen, Esq; *Ballyclough*
 Thomas Mahon, Esq; *Strokestown*
 The Bishop of Elphin, *Elphin*
 Bishop of Kilmore
 The Hon. Thomas Fitzmaurice, *Ballymoat*
 The Right Hon. Joshua Cooper, *Mecra*
 Lewis Irvine, Esq; *Tanrego*
 ——— Brown, Esq; *Sornland*
 Right Hon. Thomas King, *Ballyna*
 Bishop of Killalla, *Killalla*
 ——— Hutchinson, Esq; *ditto*
 The Earl of Alford, *Westport*

Mr.

P R E F A C E

Mrs. Lindsay, *Hollymount*
 His Grace the Archbishop of Tuam, *Tuam*
 Robert French, Esq; *Moniva*
 Mr. Andrew Trench, *Gahway*
 Frederick Trench, Esq; *Woodstown*
 Robert Gregory, Esq; *Kiltartan*
 Sir Lucius O'Brien, Bart. *Drummaland*
 Mr. Robert Fitzgerald
 Mr. Singleton
 Mr. Thomas Marks, *Limerick*
 Richard Aldworth, Esq; *Annsgrove*
 Lord Donneraile, *Donneraile*
 Denham Jenson, Esq; *Mallow*
 Denham Jenson, jun. Esq; *ditto*
 Robert Gordon, Esq; *Newgrove*
 St. John Jefferyes, Esq; *Blarney Castle*
 Dominick Trent, Esq; *Dunketile*
 The Earl of Shannon, *Castle Martyr*
 Robert Longfield, Esq; *Castle Mary*
 Earl of Inchiquin, *Rosstellan*
 Rev. the Dean of Corke, *Corke*
 Rev. Archdeacon Oliver
 Sir John Croulthurst, Bart.
 ——— Herbert, Esq; *Mucrus*
 Arthur Blennerhasset, Esq; *Arbella*
 Earl of Glandore, *Ardfert*
 Lord Crosbie, *ditto*
 Robert Fitzgerald, Esq; *Woodford*
 Edward Leslie, Esq; *Tarbat*
 Mrs. Quin, *Adair*
 Right Hon. Silver Oliver, *Castle Oliver*
 Earl of Clanwilliam
 ——— Macarthy, jun. Esq; *Spring House*
 Mr. Allen
 Lord de Montalt, *Dundrum*

Right

Right Hon. Sir Wm Osborne, Bart. *Newtown*

~~Moore, Esq; *Marlesfield*~~

Earl of Tyrone, *Curraghmoor*

Cornelius Bolton, Esq; *Ballycabern*

Cornelius Bolton, jun. Esq; *ditto*

Richard Nevill, Esq; *Furness*

John Lloyd, Esq; *Gloster*

Peter Holmes, Esq; *Johnstown*

Michael Head, Esq; *Derry*

Rev. Mr. Lloyd, *Cullen*

Lord Viscount Kingsborough, *Mitchelstown*

SUCH are the contributors to this work. It is with the utmost pleasure I reflect on the liberal, polite, and friendly manner in which I was received by such a number of persons, among whom are many of the most distinguished characters in Ireland—Characters that would reflect a lustre upon any nation.

THE most careless eye will discern at once the great advantages, which the uncommon, but polite hospitality of the nation, united with an eagerness to do whatever had the most distant appearance of being serviceable to their country, gave me in describing it. If, with all these advantages, Ireland is not in future much better known than ever she was before, the fault is entirely mine, and I have little to plead in extenuation of it.

A TOUR

T O U R, &c.

JUNE 19th, 1776, arrived at Holyhead, after an instructive journey through a part of England and Wales I had not seen before. Found the packet, the Claremont, captain Taylor, would sail very soon. After a tedious passage of twenty-two hours, landed on the 20th, in the morning, at Dunlary, four miles from Dublin, a city which much exceeded my expectation; the public buildings are magnificent, very many of the streets regularly laid out, and exceedingly well built. The front of the parliament house is grand; though not so light as a more open finishing of the roof would have made it. The apartments are spacious, elegant, and convenient, much beyond that heap of confusion at Westminster, so inferior to the magnificence to be looked for in the seat of the empire. I was so fortunate as to arrive just in time to see Lord Harcourt, with the usual ceremonies, prorogue the parliament. Trinity college is a beautiful building and a numerous society; the library is a very fine room, and well filled. The new exchange will be another edifice to do honour to Ireland; it is elegant, cost 40,000l. but deserves

a better situation. From every thing I saw, I was struck with all those appearances of wealth which the capital of a thriving community may be supposed to exhibit. Happy if I find through the country, in diffused prosperity, the right source of this splendor! The common computation of inhabitants 200,000, but, I should suppose, exaggerated. Others guessed the number 140, or 150,000.

JUNE 21st, introduced by Colonel Burton to the Lord Lieutenant, who was pleased to enter into conversation with me, on my intended journey, made many remarks on the agriculture of several Irish counties, and shewed himself to be an excellent farmer, particularly in draining. Viewed the Duke of Leinster's house, which is a very large stone edifice, the front simple but elegant, the pediment light; there are several good rooms; but a circumstance unrivaled is the court, which is spacious and magnificent; the opening behind the house is also beautiful. In the evening to the Rotunda, a circular room, 90 feet diameter, an imitation of Ranelagh, provided with a band of music.

THE barracks are a vast building, raised in a plain stile, of many divisions, the principal front is of an immense length. They contain every convenience for ten regiments.

JUNE 23^d. Lord Charlemont's house in Dublin, is equally elegant and convenient, the apartments large, handsome, and well disposed, containing some good pictures, particularly one by Rembrandt, of Judas throwing the money on the floor, with a strong expression of guilt and remorse; the whole group fine. In the same room is a portrait of Cæsar Borgia by

by Titian. The library is a most elegant apartment of about 40 by 30, and of such a height, as to form a pleasing proportion; the light is well managed, coming in from the cove of the ceiling, and has an exceeding good effect; at one end is a pretty anti-room, with a fine copy of the Venus de Medicis, and at the other, two small rooms, one a cabinet of pictures and antiquities, the other medals. In the collection also of Robert Fitzgerald, Esq; in Merion square are several pieces which very well deserve a traveller's attention.---It was the best I saw in Dublin. Before I quit that city, I observe, on the houses in general, that what they called their two-roomed ones, are good and convenient. Mr. Latouche's, in Stephen's Green, I was shewn as a model of this sort, and I found it well contrived, and finished elegantly. Drove to Lord Charlemont's villa at Marino, near the city, where his Lordship has formed a pleasing lawn, margined, in the higher part, by a well-planted thriving shrubbery, and, on a rising ground, a banqueting room, which ranks very high among the most beautiful edifices I have any where seen; it has much elegance, lightness, and effect, and commands a fine prospect; the rising ground on which it stands slopes off to an agreeable accompaniment of wood, beyond which, on one side, is Dublin harbour, which, here, has the appearance of a noble river crowded with ships moving to and from the capital. On the other side is a shore spotted with white buildings, and beyond it the hills of Wicklow, presenting an out-line extremely various. The other part of the view (it would be more perfect if the city was planted out) is varied, in some places nothing but wood, in others, breaks of prospect. The

lawn, which is extensive, is new grass, and appears to be excellently laid down; the herbage, a fine crop of white clover, (*trifolium repens*), trefoile rib-grass, (*plantago lanceolata*), and other good plants. Returned to Dublin, and made inquiries into other points, the prices of provisions, &c. The expences of a family, in proportion to those of London, are, as five to eight.

HAVING, the year following, lived more than two months in Dublin, I am able to speak to a few points, which, as a mere traveller, I could not have done. The information I before received of the prices of living is correct. Fish and poultry are plentiful and cheap. Good lodgings almost as dear as they are in London; though we were well accommodated (dirt excepted) for two guineas and a half a week. All the lower ranks in this city have no idea of English cleanliness, either in apartments, persons, or cookery. There is a very good society in Dublin in a parliament winter—a great round of dinners and parties, and balls and suppers every night in the week, some of which are very elegant; but you almost every where meet a company much too numerous for the size of the apartments. They have two assemblies on the plan of those of London, in Fishamble-street, and at the Rotunda; and two gentlemen's clubs, Anthry's and Daly's, very well regulated; I heard some anecdotes of deep play at the latter, though never to the excess common at London. An ill-judged and unsuccessful attempt was made to establish the Italian Opera, which existed, but with scarcely any life, for this one winter; of course they could rise no higher than a comic one. La Buona Figliuola, la Frasca-

tana,

tana, and ill Gelofo in Cimento, were repeatedly performed, or rather murdered, except the parts of Sestini. The house was generally empty, and miserably cold. So much knowledge of the state of a country is gained by hearing the debates of a parliament, that I often frequented the gallery of the house of commons. Since Mr. Flood has accepted the vice-treasurership of Ireland, he has ceased to exert his amazing powers: Mr. Daly, Mr. Gratten, Sir William Osborn, and the prime serjeant Burgh, are reckoned high among the Irish orators. I heard many very eloquent speeches, but I cannot say they struck me like the exertion of the abilities of Irishmen in the English house of commons. Before I conclude with Dublin, I shall only remark, that walking in the streets there, from the narrowness and populousness of the principal thoroughfares, as well as from the dirt and wretchedness of the *canaille*, is a most uneasy and disgusting exercise.

JUNE 24th, left Dublin and passed through the Phoenix park, a very pleasing ground, at the bottom of which, to the left, the Liffy forms a variety of landscapes: this is the most beautiful environ of Dublin. Take the road to Luttrell's town through a various scenery on the banks of the river. That domain is considerable in extent, being above 400 acres within the wall, Irish measure; in the front of the house is a fine lawn bounded by rich woods, through which are many ridings, four miles in extent. From the road towards the house, they lead through a very fine glen, by the side of a stream falling over a rocky bed,---through the dark woods,---and on the sides of declivities, at the bottom of which the Liffy is either heard or seen indistinctly; these woods are of

great extent, and so near the capital, form a retirement exceedingly beautiful. Lord Ingham and Colonel Luttrell have brought in the assistance of agriculture to add to the beauties of the place, they have kept a part of the lands in cultivation in order to lay them down the better to grass; 150 acres have been done, and above 200 most effectually drained in the covered manner filled with stones. These works are well executed. The drains are also made under the roads in all wet places, with lateral short ones to take off the water instead of leaving it, as is common, to soak against the causeway, which is an excellent method. Great use has been made of lime-stone gravel in the improvements, the effect of which is so considerable, that in several spots where it was laid on 10 years ago, the superiority of the grass is now similar to what one would expect from a fresh dunging.

MR. MACFARLAN the steward has at some distance from the grounds a farm which he is bringing into high order. His ditches are large, deep, and well cut, and he has made many drains. Lime he has used much, and experimentally against spots unlimed, and found the benefit very great; the soil, a strong, wet, stoney loam on lime stone. He lays 160 barrels an acre, at the expence of seven pence a barrel, and finds that it will last as long as the gravel. For meadow lands, he prefers it mixed with earth, but on tillage gravel. Soot he buys at Dublin for sowing over wheat in april to kill the red worm, for which it answers, and also improves the crop. Another circumstance in which he differs from the farmers, is cutting straw into chaff, and also in beginning to plough his fallows in autumn. He much prefers ploughing with oxen to horses. The following particulars

particulars he gave me of the general state of husbandry in the county of Dublin: farms about 100l. a year, more above than under, some to 300l. a year. The soil on the surface a stoney yellow clay, 18 inches deep on lime-stone gravel, with some exceptions of slate-stone, rents about 1l. 11s. 6d: from 10s. 6d. to 3l. 3s. courses most general, 1. Fallow. 2. Wheat. Sow 1 barrel, and get on an average 8 barrels. 3. Oats. Sow 2 barrels, get from 12 to 20. Sometimes 1. Fallow. 2. Wheat. 3. Oats. 4. Clover. 5. Wheat. 6. Oats. They plough four times for wheat, on clover but once, feed their clover the year through, No sain-foine.

MANY potatoes in the ridgeway 7 feet broad, and the furrows 3f. Cut generally 18 to 24 inches deep, in order to throw up some lime-stone gravel: always dung for them, 320 one horse loads to an acre at about five or six to a ton, are spread over the seven feet. Lay the sets upon the dung, dig a spit and shovel it; then dig another spit, and another shovelling, the sets 12 inches asunder; from four to five barrels plant an acre. Weed, but no hoeing; take them up with the spade, and the crop from 60 to 70 barrels: all are planted for home-use, but they give their pigs the small ones, boiled; and they will fatten them to be fine bacon, but give some butter-milk, and a week or two before they are killed some offal corn. For fowls, boil them to a mash, and mix with butter-milk, which fattens them exceedingly well. The price of potatoes on an average 20d. per cwt. the most productive sorts are the white kidney, and the white Munster. Lime-stone gravel the general manure of the country; they lay 3 or 400 one horse-cart loads per acre; it will last from 15 to 20 years, and is of the greatest be-

benefit; it appears immediately: the expence usually
 1l. 11s. 6d. per acre: spread it on the fallow, after
 the first plowing. They go much to Dublin for
 fullage of the streets to lay on their hay grounds.
 Good grafs-land letts at 40 s. an acre; five miles round
 Dublin from 40s. to 10l. on an average about 3l. 8s.
 Mow most of it for hay; a good crop 20 load at 4 cwt.
 an acre round Dublin; through the county 12 load
 an acre. Many dairies kept for letting from 5l. 15s.
 to 6l. 5s. per cow; the dairyman finds labour, but
 has horses enough kept him to draw the milk to
 Dublin. On an average a cow will require, for her
 summer and winter food, an acre and a half, but not
 of the best grafs.---Of that an acre would do.---The
 breed the old Irish; the English cows do not give so
 much milk: from 4 to 6 lb. of butter a cow the
 produce per week: the butter-milk sells from 4s. to
 6s. per barrel. A good cow should give eight quarts
 a day, if less the cowman rejects her. The winter
 food hay. Very few swine kept, except by cottagers.
 Sheep they buy in june or july, and sell them
 from september until march; buy in wethers three
 years old, at 20s. and sell them out at 1l. 11s. 6d.
 but give them hay. Plough with oxen four in a
 plough; but in *goring*, or *cross-plowing*, six, and
 do half an acre a day. To 100 acres arable there must
 be six bullocks and eight horses. Plough nine inches
 deep at *goring*; price of ploughing, sowing, and
 harrowing, 16s. to 20s. an acre. Lay their fields in
 four foot lands. Keeping horses, 9l. a year each.
 No cutting of straw into chaff among the common
 farmers: the plough oxen they work on straw. They
 have more horses than oxen; put the latter to work at
 three years old, keep them at it till nine, then fatten
 them. They break their stubbles in may or june.
 In hiring and stocking farms, they will, with 80l.
 or

LUTTRELSTOWN.

89

or 100l. take as many acres, dividing as follow on
80 acres.

	£.	s.	d.	£.	s.	d.
6 Horses at	3	3	-	18	18	0
4 Oxen	3	0	-	12	0	0
4 Cows	2	10	-	10	0	0
2 Pigs	18	-	-	1	16	0
4 Irish cars	1	7	-	5	8	0
2 Ploughs	-	-	-	1	1	0
2 Harrows	-	-	-	0	16	0
Harness	-	-	-	4	4	0
Sundries	-	-	-	5	0	0
Furniture	-	-	-	5	0	0
House-keeping the first year	-	-	-	6	0	0
1 Man 4l. and 1 boy 2l. wages	-	-	-	6	0	0
1 Maid	-	-	-	1	10	0
Seed 13 acres, wheat 20s. }	-	-	-	23	8	0
Oats 13 acres 16s. }	-	-	-			
				101	1	0

For part of which he will run in debt. Land sells in
general, through the county, at 22 years purchase,
Till within three years it rose much, from 1762 to
1772; since that it has rather fallen. Tythes are
compounded by the acre. Wheat and barley 5s. 6d.
Oats 2s. 9d. near Dublin 5s. or 6s. Most of the
people drink tea, and consume plenty of whisky and
tobacco. Leases 41 or 61 years; many on lives, and
also renewable for ever. Rent of cottages 26s. to 30s.
with a potatoe garden. No emigrations. The re-
ligion in general catholic. Labour through the year
rod. a day, about Dublin 1s. A ditch of six feet wide,
five feet deep perpendicular, and two and a half at bot-
tom, the earth all on one side, 2s. 6d. a perch. Thresh-
ing and cleaning wheat 9d. per barrel; barley 6d.
Oats 4d.

PRO-

PROVISIONS.

BREAD 10 lb. of 14 oz. for 12d.—Bacon 6d.—Butter-milk 1d. a quart.—New milk 2d. a quart.—Potatoes 1s. 6d. per cwt.—Candles 5d. per pound.—Soap 6d.—Firing all stolen.

BUILDING.

IRISH slate 15s. per 1000. English 20s.—Oak timber rather fallen in price in 10 years.—Elm 1s. 4d. Beech 1s. Soft wood 8d. Firs at 60 years growth, one ten to one and a half of timber, and worth 2l. 2s. Walling 1s. a perch, for labour of 7 feet high and 18 inches thick. Building a cottage 3l. ditto a farmhouse and all offices for 80 acres, 20l.

LEAVING Luttrellstown, I went to St. Wolfans, which Lord Harcourt had been so obliging as to desire I would make my quarters, from whence to view to the right or left.

JUNE 25th, to Mr. Clements, at Killadoon, who has lately built an excellent house, and planted much about it, with the satisfaction of finding that all his trees thrive well; I remarked the beech and larch seemed to get beyond the rest. He is also a good farmer. Cabbages he has repeatedly tried, and used them generally for fattening sheep, and finds them much better for the purpose than turnips. Potatoes he cultivates largely, not only for family use, but also for fattening swine; boils them, and they fat exceedingly well, without any mixture of meal, both porkers and for bacon, giving them oats for three weeks at last. He has been very attentive to bring his farm into neat order respecting fences, throwing down and levelling old banks, making new ditches, double ones,

ones six feet wide and five deep, with a large bank between for planting, more effectually than ever I saw in England: also in hollow draining his wet lands. Remarking in one of his fields under oats one part, about an acre incomparably beyond the rest of the field, I enquired into the cause of it, and found it sown with an English oat, no other difference in the circumstances. His system of sheep is to buy ewes, in september, at 14s. 6d. and to fatten both lamb and ewe, selling the first at 9s. and the latter at 18s. The wool is 4s. They lamb the beginning of march. Observing the legs being long, his man assured me that the longer the legs, the better the sheep sold in Smithfield. A ridiculous prepossession! but not peculiar to Ireland; Wiltshire has it.

JUNE 26th, breakfasted with Colonel Marlay, at Cellbridge, found he had practised husbandry with much success, and given great attention to it from the peace of 1763, which put a period to a gallant scene of service in Germany; walked through his grounds, which I found in general very well cultivated; his fences excellent, his ditches five by six, and seven by six; the banks well made, and planted with quicks; the borders dug away covered with lime, till perfectly slacked, then mixed with dung, and carried into the fields; a practice which Mr. Marlay has found of very great benefit. He has cultivated the large Scotch cabbage for two or three years, which came to 16 or 17lb. on an average, applied them to fattening oxen that had been fed on grass; began to give them in november; has had two and a half acres: they fatten the beasts very well, full as well as turnips, but did not think they answered the expence, as they

they require, in order to have them of a great size, an immense quantity of dung.

TURNIPS.

He has sown every year since 1763, always had from 4 to 17 acres; has usually drilled them in rows, the distances various; but those which answered best, were double at 12 inches, with intervals of three feet, horse hoed, hand hoed, and weeded them. Prepared for them by lime and dung; the crops fine, up to 21lb. a turnip, but on an average about 8lb. Generally fed beasts with them that had had the summer's grass, but with both gave some hay, and were very fat in four months. Continued them in the same ground for six or seven years together, manuring every second year. It is to be regretted that he did not change the land.

POTATOES.

PLANTS them with the plough, drawing furrows five feet asunder, fills them with dung, the sets on the dung, covered with the plough, and horse-hoed backwards and forwards; the crop 28 barrels per acre of very large ones.

CLOVER.

Mr. Marlay has introduced this plant so generally, that he sows no corn without it. The profit exceedingly great, more than that of any other improvement.

LIME.

USED much, mixed with earth, and found great success from it, even on lime-stone land. Burns at 7d. a barrel; always leaves it on the ditch-earth to slack, and then mixes it before dung is added.

DRAIN-

CELLBRIDGE.

DRAINING.

HAS drained much in the hollow way, filling with stones, and found the benefit exceedingly great, can cart on the wettest lands at any time; two years have paid the expence.

PLOUGHING.

INSTEAD of the common draught of the country, he uses often only two oxen in a plough, having many sorts of ploughs from Mr. Baker, and from England.

Cows.

FROM three Kerry cows, from the middle of may to the middle of september, he had 24 lb. of butter a week.

THE Colonel favoured me with the following particulars of the common husbandry about Cellbridge. Farms generally 100 acres; the medium of the county from 20l. to 100l. a year. Soil various; stoney loams, gravels, and clays, and on lime-stone quarries. Rents about 1l. 10s. on an average. Their course, 1. Fallow. 2. Wheat, sow a barrel and get seven. 3. Oats, sow two barrels and get 14. 4. Oats.

THEY plough three or four times for wheat. Turnips were sown in fields 30 years ago, but left off on account of the poor stealing them. Great quantities of potatoes planted in the trenching way, the expence 3l. in labour only to plant them if done by hire, and 40s. if for themselves. The cottagers pay the farmers 8l. an acre for the land ready dunged, and they require three car loads to every square perch.—This great manuring swallows up not only all

all the dung of the farm, but nine-tenths of that of the kingdom. They begin to plant in march, and continue to the end of may; most of them weed; the crop upon an average about 100 barrells, at 5s. each. They are obliged to clear the land by the first of november, when the farmer ploughs and sows wheat and gets fine crops. The apple potatoe is liked best, because they last till the new ones come in. In respect to other manuring, they use but little lime, depending principally on lime-stone gravel, 300 ear loads to an acre; if taken out of a ditch on the spot, it costs about 18 or 19s. an acre. It will last five or six years good. The tenants often lay land to grass; but their only way is to let it cover itself with such vegetables as may come, which upon some land form a very good turf. Few cows kept for the dairy. They apply their grass chiefly to fattening cows; there is some good meadow on the river; and, in grazing, two acres will fatten three cows, besides some sheep and winter food. Flocks rise to 3 or 400—they buy in wethers half fat, which are kept in the after-grass till christmas, then to hay, and sell in february and march; buy at 18 to 20, sell at 30 to 35. They plough with both horses and oxen, the draft four oxen, or two oxen and two horses. To a farm of 117 acres ten horses and two oxen are necessary. They plough five inches deep, and do one half, or three-fourths, of an acre a day. Lay their lands in three feet ridges.—The draft-oxen have hay when worked. Hire of a boy, a horse and car, 1s. 6d. a day; two cars and one man 1s. 6d. In hiring and stocking farms—for 50 acres

CELLBRIDGE.

13

4 Horses, at 3l. 3s.	12 12 0
3 Cows, at 3l. 3s.	9 9 0
2 Young cattle, at 16s.	1 12 0
2 Pigs 5s.	0 10 0
2 Cars 40s.	4 0 0
1 Plough	0 6 0
Harrows	0 5 0
No harness	
Sundries	1 0 0
Furniture	1 0 0
Housekeeping 1s. 4d. a day for half a year	12 0 0
Harvest, labouring, &c.	10 0 0
Seed, 10 acres, 10 barrels wheat	10 0 0
10 Acres oats, 20 ditto	6 0 0
5 Ditto bere, 5 ditto	3 0 0

£. 71 14 0

PRODUCE.

3 Cows 5 lb. butter a week, from 1st of } may to end of september 100 lb. at 8d.	3 6 8
2 Pigs	1 4 0
50 Barrels of wheat	50 0 0
10 Acres wheat straw	10 0 0
10 ——— oats, 100 barrels	30 0 0
5 ——— bere, 13 ditto	48 15 0

£. 143 5 8

EXPENCES.

Labour	£. 10
Rent and cefs	80
	£. 90 0 0

A FAR-

A FARMER that has a plough, a harrow, three cars, four horses and six cows, with 50l. in his pocket, will take a farm of 100 acres. Tythes—for wheat 7s. for oats and bere 3s. for mowing ground 5s. Land sells at 22 years purchase; has fallen since 1772 one or two years. County cess paid by tenant for roads 1s. an acre. Leases usual three lives or 31 years, some renewable for ever. People rather increased. All catholics. Rent of a cabin, and half an acre of land, 40s. Building a new cottage 10l. which, with half an acre, lets at 40s. for a farm of 50 acres, 40 to 50l. Building a wall 10 feet high, 18 inches thick, and 21 feet long, 34s. with mortar dashed 8s. less, slating a guinea a square.

WALKED through Laughlinstown, the farm of the late Mr. John Whyn Baker, to whom the Dublin society, with a liberality that does them great honour, gave, for several years, 300l. annually, to make experiments. I had the pleasure of corresponding with him several years; melancholy it was to see the land of a man of so much ingenuity so soon after his death; and more so, to hear, with all his exertions, he was not able to answer the expectations raised of him. I found what I had suspected from reading his experiments, that he wanted capital; without a sufficient one it is impossible to farm well:—a man may have all the abilities in the world, write like a genius, talk like an angel, and really understand the business in all its depths, but unless he has a proper capital, his farm will never be fit for exhibition; and then, to condemn him for not being a good farmer in practice as well as theory, is just like abusing the inhabitants of the Irish cabins for not becoming excellent managers.

nagers. No idea could be more useful, than that of encouraging such a man as Mr. Baker; but a capital should have been furnished him for bringing his farm into order, and when it was so, he should have been directed not to try any experiments; because those trials were for the acquisition of knowledge in disputable points; the society wanted no such disquisitions; but the exhibition of a farm, cultivated in a manner which experience had rendered indisputable in England or elsewhere.

VIEWED Lucan, the seat of Agmondisham Vesey, Esq; on the banks of the Liffy; the house is rebuilding; but the wood on the river, with walks through it, is exceedingly beautiful. The character of the place is that of a sequestered shade. Distant views are every where shut out, and the objects all correspond perfectly with the impression they were designed to raise: it is a walk on the banks of the river, chiefly under a variety of fine wood, which rises on varied slopes, in some parts gentle, in others steep; spreading here and there into cool meadows; on the opposite shore, rich banks of wood or shrubby ground. The walk is perfectly sequestered, and has that melancholy gloom which should ever dwell in such a place. The river is of a character perfectly suited to the rest of the scenery; in some places breaking over rocks, in others silent, under the thick shade of spreading wood. Leaving Lucan, the next place is Leixlip, a fine one on the river, with a salmon leap, which, in a wet season, is considerable. Then St. Wolfstans, belonging to the dean of Derry, a beautiful villa, which is also on the river; the grounds gay and open, though not without the advantage of much wood disposed with

judgment. A winding shrubbery quits the river, and is made to lead through some dressed ground that is pretty and chearful.

Mr. CONOLLY's, at Castle-town, to which all travellers resort, is the finest house in Ireland, and not exceeded by many in England; it is a large handsome edifice, situated in the middle of an extensive lawn, which is quite surrounded with fine plantations disposed to the best advantage: to the north these unite into very large woods, through which many winding walks lead, with the convenience of several ornamented seats, rooms, &c. On the other side of the house, upon the river, is a cottage, with a shrubbery, prettily laid out; the house commands an extensive view, bounded by the Wicklow mountains. It consists of several noble apartments. On the first floor is a beautiful gallery, 80 feet long, elegantly fitted up.

JUNE 27th, left Lord Harcourt's, and having received an invitation from the Duke of Leinster, passed through Mr. Conolly's grounds to his Grace's seat at Cartown, the park ranks among the finest in Ireland. It is a vast lawn, which waves over gentle hills, surrounded by plantations of great extent, which break and divide in places, so as to give much variety. A large but gentle vale winds through the whole, in the bottom of which a small stream has been enlarged into a fine river, which throws a chearfulness through most of the scenes: over it a handsome stone bridge. There is a great variety on the banks of this vale; part of it consists of mild slopes, part steep banks of thick wood; in another place they are formed into a large shrubbery, very elegantly laid out, and dressed in the highest order, with a cottage,

stage, the scenery about which is uncommonly pleasing; and further on, this vale takes a stronger character, having a rocky bank on one side, and steep slopes scattered irregularly, with wood on the other. On one of the most rising grounds in the park is a tower, from the top of which the whole scenery is beheld; the park spreads on every side in fine sheets of lawn, kept in the highest order by 1100 sheep, scattered over with rich plantations, and bounded by a large margin of wood, through which is a riding. From this building his Grace has another sort of view, not every where to be met with; he looks over a great part of 60,000 acres, his own property, which lie nearly contiguous around him; and Ireland is obliged to him for spending the revenue on the spot that produces it. At a small distance from the park is a new town, Manooth, which the Duke has built; it is regularly laid out, and consists of good houses. His Grace gives encouragement to settling in it, consequently it increases, and he meditates several improvements. Reached Kilcock.

JUNE 28th, breakfasted with Mr. Jones of Dolles-town, who was so obliging as to answer my inquiries concerning the husbandry of his neighbourhood. He informed me, that the town of Kilcock contained six great distilleries for making whisky, and that all the wash and grains were used in fattening either hogs or beasts, generally the latter. About november they put them to it, and though quite lean, they will be completely fat by easter: those who are more attentive than common, give them also some bran or hay. Mr. Foster of Branchale, at some distance from the town, has a more complete distillery, and fats more beasts than any other person.

FARMS here rise from 20 to 100 acres, at 21s. an acre, except about the town, where they are higher: but they have fallen 5s. an acre in five or six years. The course most common is, 1. Potatoes, which yield 60 barrels an acre. 2. Bere sown in november, three quarters of a barrel per acre, the crop 13 or 14. 3. Oats, 1 and a half to two barrels sown, the produce 13. 4. Oats. 5. Summer fallow. 6. Wheat, sow three quarters, get 7. 7. Oats. 8. Oats.

They plant some potatoes on lays without dung; but for this the land must be very good, or the lay old: it is not esteemed so good a way as on stubble. The cottars give 5l. 5s. to 6l. an acre dunged for planting potatoes, and their expences are as follow;

RENT	5 15 10
Digging and putting in	3 10 0
10 Barrels of seed, at 5s. per barrel	2 10 0
Planting and spreading the dung	0 10 10
Digging and gathering	3 10 0
	<hr/>
	£. 15 15 10

THE cutting the sets, and weeding done in broken days. Sixty barrels at 5s. — 15l. Consequently, the prime cost to them is 5s. a barrel, or 1s. 3d. a bushel, English, which is an evident proof that this is the worst mode of planting in the world. They have not done taking them up till christmas. Lime-stone gravel is the general manure of the country; it is found at two feet depth, and the worse the ground is the better the gravel does upon it. They use

use it only for ploughed land. A good dressing of it costs 50s. an acre, and it lasts seven years. But few cattle or sheep kept, for tillage has increased within twenty years very much, owing to the culture of potatoes, not to the bounty on the inland carriage of corn. They plough entirely with horses, use four in a plough, and do three-fourths of an acre a day. In laying their wheat and bere lands, they are very attentive to do it well; if the soil is dry on broad lands, if wet, on narrow; and after it is sown and harrowed, they go once with the plough in every furrow, and shovel out all the loose moulds; a practice which cannot be praised too much. They are, upon the whole, in much better circumstances than formerly, have fewer holidays, and more industry. Tythes are compounded. Meadow 3s. Wheat 5s. Bere 5s. Oats 3s. Leases are from 21 to 31 years. Rent of a cabbins and small garden 40s. Building one 5l. A farm-house and offices for 50 acres, 40l. I remarked, all the way I came, great quantities of poultry in the cabbins and farms.

MR. JONES, in an attentive practice of agriculture, has tried some experiments of consequence. Potatoes he has cultivated for cattle; and had, at one time, twelve store bullocks keeping upon them—they liked them much, and eat three barrels a day. They weighed 5 cwt. each; and had they been kept long enough on the potatoes, would have been fattened. Each bullock, eating one bushel of potatoes in a day, and supposing him to be four months in fattening, he would eat 120 bushels; a good English acre should produce, at least, 480 bushels of the cluster potatoe, and would consequently fatten four bullocks. I should think this might answer. For

his horses, he boils the potatoes, gives them, mixed with bran, and finds that they do very well on them without oats. Mr. Armstrong of King's-county, had 80 sheep in the snow last winter, which got to his potatoes, and eat freely, upon which he picked 40 of the sheep and put them to that food regularly; they fattened very quick, much sooner than 40 others at hay, and yielded him a great price at Smithfield.

MR. JONES has improved some poor rough land that produced nothing, first by hollow draining thoroughly, and then manuring with limestone gravel, which brought up a great crop of white and red clover, and trefoile. He also spreads this manure on lays he intends breaking up; and observes that the use of it is very great, for, when dug out of ditches, you gain at once manure, drains and fences. He has seen some of it dropt on a bog in carting, and wherever it falls, is sure to bring up the white clover.

FROM hence took the road to Summerhill, the seat of the Right Hon. H. L. Rowley; the country cheerful and rich; and if the Irish cabbins continue like what I have hitherto seen, I shall not hesitate to pronounce their inhabitants as well off as most English cottagers. They are built of mud walls 18 inches or two feet thick, and well thatched, which are far warmer than the thin clay walls in England. Here are few cottars without a cow, and some of them two. A bellyful invariably of potatoes, and generally turf for fuel from a bog. It is true, they have not always chimnies to their cabbins, the door serving for that and window too: if their eyes are not affected with the smoke,

smoke, it may be an advantage in warmth. Every cottage swarms with poultry, and most of them have pigs. It is to the polite attention of Mr. Rowley, I owe the following information. About Summerhill the soil is mostly strong stoney land on clay, but naturally fertile. He lets it at about 20s. an acre, which is the average rent of the whole county of Meath, to the occupier; but if the tenures of middle men are included, it is not above 14s. This intermediate tenant, between landlord and occupier, is very common here. The farmers are very much improved in their circumstances, since about the year 1752. At a rack-rent, the land sells at 21 years purchase; but according to circumstances, to 26 and 27. Whenever a number of years purchase of land is mentioned in Ireland, it implies a neat rent, without any deductions whatever. A course of crops very common here is from the lay.

1. Wheat, the crop 6 barrels.
2. Wheat.
3. Oats, the crop 10 barrels.
4. Oats.
5. Clover.
6. Clover.

Potatoes are much planted, the best land yields 100 to 120 barrels per acre, but a middling produce 80, at 32 stone the barrel. The poor pay 6l. or 6l. 6s. an acre rent for grass land to plant, and 3l. or 4l. for a second crop. They are every where used for feeding hogs and poultry. Mr. Rowley has fattened worked oxen of five years old in eight weeks on them par-boiled, with hay besides. Much marle is used here on the lighter lands, but for the heavy soils limestone gravel is preferred. In hiring farms the lower tenants will take them of 50 acres, if they have a few cows and horses, without a shilling in their pockets.

Mr.

Mr. Rowley keeps a very considerable domain in his hands; adjoining to it is a black turf bog of admirable use for firing. I viewed it attentively, and am clear, that all such bogs as this, with a fall from them for draining, might very easily be improved into excellent meadow. The surface is covered with heath about a foot high, and under that eight or nine feet deep of puffy stuff, which when burnt yields no ashes; then the bog turf ten feet deep cuts like butter, and under that a marly lime-stone gravel. They have found at fourteen feet depth, evident marks of the plough in the soil at bottom, also remains of cabbins, cribs for cattle, mooses horns, oaks, yews, and fir, being good red deal. In working for fuel, they dig out the black bog and throw the upper stratum in its place, through which open drains being kept, the turfs, as they are dug, are spread on it for drying. In many spots I remarked the vernal grafs (*anthoxanthum odoratum*), the holcus (*lanatus*), narrow leaved plantain (*plantago lanceolata*), docks (*rumex*), white and red clover; and on the banks of the master drains a full crop of fern (*pteris aquilina*). Upon cutting small surface drains on the bog the heath (*erica*) doubles its growth. The expence of cutting drains in the bog six feet wide at top, six deep, and one wide at bottom, is 8d. or 9d. a perch of 21 feet. The plantations and ornamented grounds at Summerhill are extensive, and form a very fine environ, spreading over the hills, and having a noble appearance from the high lands above the bog. The house is large and handsome, with an elegant hall, a cube of 30 feet, and many very good and convenient apartments.

WENT in the evening to Lord Mornington's at Dangan, who is making many improvements, which he

he shewed me; his plantations are extensive, and he has formed a large water, having five or six islands much varied, and promontories of high land shoot so far into it as to form almost distant lakes, the effect pleasing. There are above 100 acres under water, and his Lordship has planned a considerable addition to it. Returned to Summerhill,

JUNE 29th, left it, taking the road to Slaine, the country very pleasant all the way; much of it on the banks of the Boyne, variegated with some woods, planted hedge-rows, and gentle hills: the cabbins continue much the same, the same plenty of poultry, pigs, and cows. The cattle in the road have their fore legs all tied together with straw to keep them from breaking into the fields; even sheep, pigs, and goats are all in the same bondage. I had the pleasure of meeting the Rt. Hon. Mr. Burton at the castle, in whom I was so fortunate as to find, on repeated occasions, the utmost assiduity to procure me every species of information, entering into the spirit of my design with the most liberal ideas. His partner in Slaine mills, Mr. Jebb, gave me the following particulars of the common husbandry, which, upon reading over to several intelligent farmers, they found very little occasion to correct. Farms rise from 100 to 300 acres, the soil, a stoney loam upon a rock, and lets on an average at 25s. and the whole county throughout the same. The courses of crops; 1. Fallow with lime, 120 barrels an acre, at 7d. besides carriage. 2. Wheat, sow a barrel, and get 6 to 7, sometimes 11. 3. Barley or oats, if barley, sow one and a quarter, and get 13. 4. Oats, sow two barrels, the crop 16. Also, 1. fallow, 2. wheat, 3. barley, 4. oats, 5. clover, for two

two years, 6. barley. Another, 1. fallow, 2. wheat, 3. spring corn, 4. spring corn, 5. fallow, 6. wheat, 7. barley, and red or white clover or trefoile and hay feeds. Another, 1. fallow, 2. wheat, 3. clover, 2 years, 4. barley, 5. oats. A common practice is, for the farmers to hire any kind of rough waste land, at three guineas, or three pounds an acre for three crops, engaging to lime it if the lime is found them; 120 barrels per acre, which come to 3l. 10s. from 9l. 9s. leaves six for three years. They cultivate it in the common course of, 1. fallow, 2. wheat, 3. barley, and 4. oats. Turnips not generally come in, but farmer Macguire has 20 to 40 acres every year, but does not hoe them, he feeds sheep on the land, and then sows barley and clover. Clover would be more general, was it not for the expence of picking the stones for mowing, which costs 10s. or 12s. an acre. Sometimes mow it once, and feed afterwards; the crops exceedingly great. A few tares sown for the horses. On the banks of the Nanny water, many white peas instead of a fallow, the crops good, and wheat sown after them. They also sow beans about Kilbrue. Every farmer has a little flax, from a rood to an acre, and all the cottages a spot if they have any land, they go through the whole process themselves, and spin and weave it. From hence to Drogheda, there is a considerable manufacture of coarse cloth, which is exported to Liverpool, at about 1s. a yard. At Navan there is a fabrick of sackings for home consumption; the weavers earn 1s. a day at these works.

POTATOES are a great article of culture; the cottagers take land of the farmers, giving them 4l. 10s. an acre, dunged. All in the trenching way, the ridge six feet,

feet, the furrow two and a half, always weed, the best season for planting the middle of april. The crop 64 barrels on an average, and the price 3s. 6d. a barrel. They have got much into the apple potatoe.

	£. s. d.
Rent,	4 11 0
Spreading dung,	0 2 0
Seven barrels of seed 3s. 6d.	1 4 6
Cutting and laying,	0 6 6
Trenching and earthing up,	4 0 0
Taking up picking three halfpence a bar-	} 0 8 0
rel, 64	
	<hr/>
	10 12 0

From whence it appears, that the prime cost of the potatoes is 4s. a barrel. Wheat is sown after them, sometimes barley, the barley good, but the wheat generally a bad crop and bad grain. If this fact is accurately stated, I can only account for it by supposing the soil so light as to want adhesion to be given to it, whereas potatoes act in a contrary manner: for fat hogs they boil them, and at last mix some bran or oats; a hog of 2cwt. will fatten in two months on six barrels and one barrel of oats. Much poultry is also reared and fed in all the cabbins by means of potatoes.

WASTE lands have been brought in and cultivated at Grange Geath, the soil stoney and overrun with heath (*erica vulgaris*) and whins, (*ulex europæus*) let before the improvement at 4s. but lets now at 20s.

They

They ploughed up the surface and spontaneous growth, summer fallowed and limed at 150 barrels an acre, sowed wheat, and pursued the course above mentioned, the crops of oats exceedingly great, 20 barrels an acre, of this land there were 2500 acres. The great manure of the country is lime, which is always laid on fallow; they find the advantage of it so clearly as to be seen in the effect to an inch; but when land is got much out of heart, then the lime will not do; and they lay it down to clover for several years till there is something of a turf, after which it will answer well. Hollow draining is generally used, even by the common farmers, who have found by experience that their lime will do no good till the land is drained. The fences about new-inclosed pieces, and those made in general by gentlemen, are ditches six feet deep, seven feet wide, and 14 inches at bottom, with two rows of quick in the bank, furze sown on the top, or a dead hedge of brush. Good grass land for meadow lets for 3l. or 4l. an acre, mow it all and get three tons of hay an acre or fifteen Irish load. Many dairies of cows, up to 50 and 60, kept here for butter. Mr. Kelly, near the obelisk, Drogheda, has 200 cows let at 5l. The breed is half English and half Irish, worth 5 to 7l. each; the farmers let theirs to dairy-men, who are common labourers, at 4l. a piece; but if they won't give five or seven quarts at a meal they may be rejected; a good one will give ten quarts of milk per meal, the produce about 5l. consequently there is 20s. a head profit. As butter-milk is the food of all the people, the number of swine kept is very small, it is carried to Drogheda, and sold at six quarts a penny. The cows are fed in winter

winter on hay alone; all are kept abroad in the day, but housed at night. They rear all the calves, weaning them at six weeks or two months old: at a fortnight they sell at 3 or 4s. Some, but not dairy-men, give them in rearing, hay tea. They fatten many cows, having much grass; an acre to a cow. Swine fatten from one to two cwt. Many are kept upon potatoes alone, and fattened intirely upon that root, which is thought to be a very profitable use; the potatoe fed pork much firmer than that on pollard. There is a great demand this year, many ship loads alive being bought up for England; and the price being good, encourages the breed incredibly. Many sheep are kept, bought in every year in autumn, mostly ewes, but some wethers, at 12 to 15s. Sell the lamb, fat, in may or june, at 10s. cut four or five pounds of wool, worth 5s. and fat the ewe to 19 or 20s. profit 1l. 1s. a head. Buy wethers at 20 to 25s. sell at 30 to 42s. with a fleece of seven pound; in winter they have hay, and some sheaf oats. No rot here. Plough all with horses, six to a plough, and do an acre a day, working often from six in the morning to eight at night, and stirring eight or nine inches deep. They keep 10 or 12 horses to 100 acres in tillage, and breed them all themselves: the year's expence to a farmer 5l. each horse; very seldom give them any oats. The price of ploughing 8s. an acre. The whole preparation of a fallow worth 25s. an acre; and for barley 12s. The form of lands, narrow ridges, three or four feet wide. They never break their stubbles till about christmas; the plough generally used is an imperfect swing one. In hiring and stocking farms, they will take 100 acres or more with
scarce

scarce any money ; but then they must have to the value of

	£.	s.	d.
8 Horses at 5l.	40	0	0
4 Cows 5l.	20	0	0
2 Sows 10s.	1	0	0
6 Cars 3l.	18	0	0
2 Ploughs 12s.	1	4	0
2 Harrows	1	13	0
No rollers used			
Harness 10s. a horse	3	0	0
Sundries	10	0	0
Household furniture	5	0	0
1 Sack of oat-meal	1	0	0

Labour supplied by letting land to others for potatoes ; no seed, as he pays the preceding tenant the eighth sheaf of the winter corn, and the fourth of the spring, in lieu of the seed and sowing

100 17 0

A VERY intelligent labourer, sent for by Mr. Burton, gave me the following account for 40 acres, 10 of them grass.

	£.	s.	d.
4 Horses	18	4	0
4 Cows	20	0	0
10 Sheep	7	0	0
1 Sow	0	15	0
1 Plough and harness	2	5	6

48 4 0
Brought

SILVANIAE.

31

Brought over		48	4	0
2 Harrows		1	2	9
10 Sacks		1	0	8
Winnowing sheet		0	10	0
Furniture		10	0	0
15 Acres oats feed, two barrels and a half an acre		18	10	0
6 Acres barley one and a half, 9 barrels		12	5	8
Labourers		20	16	0
2 Boys and a maid servant		3	8	13
Provisions 8 cwt. of oatmeal		3	4	0
4 Barrels messin at 16d.		3	4	0
Wear and tear		2	5	6
4 Cars		9	2	0
Poultry		0	13	3

127 8 3

With this expenditure they fare no better than common labourers, and do not improve in their circumstances. Land sells at rack rent 22 and 23 years purchase; as well now as in 1768; the bankruptcies in 1772 did not affect the purchase of land. County cess 8d. to 1s. an acre; tythes for wheat 7s. barley 5s. oats 3 to 4s. mowing ground 3s. 6d. nothing for land fed, and no small tythes. No tea drank among the cottagers. Leases in general 31 years to catholics; to protestants three lives or 31 years. Rent of cabbins 40s. with a potatoe garden; if a cow is kept 40s. more. No emigrations. The catholic religion general among the lower classes.

LABOUR

LABOUR.

DITCHING 6 feet by 5, 20d. a perch
 4 " by 5, 1s. 2d.
 6 " by 7, 2s. 6d.

Threshing wheat 1s. a barrel: Barley 8d. Oats 5d.
 No servants hired. Women 8d. a day in harvest.
 Rise in the price of labour in ten years, from 5d.
 and 7d. to 8d. and 10d. but they work harder and
 better.

PROVISIONS.

BACON 5d. bread 1d. potatoes 2d. halfpenny a
 stone, new milk 1d. a quart, ducks 3d. candles 6d.
 halfpenny, soap 6d. halfpenny; firing, of the poor,
 furz and coals to a trifling amount. The farmers
 burn their straw, *for which they deserve to be hanged.*

BUILDING.

SLATE 12s. per 1000. Elm 2l. 10s. to 3l. a ton.
 Fir 3l. Dry walls dashed 2s. Building a cabin
 5l. Ditto a farm-house and offices for 100 acres
 50l. Hire of four cars, one man and a boy 4s. a
 day; 23 miles from Dublin it takes the whole week
 to go twice. The price to go there 10s. a week, 4s.
 of it expences on the road. The load six cwt. each
 car. But Mr. Jebb has sent 18 cwt. to Dublin with
 one horse, and not an extraordinary one, 15 or 16
 cwt. often.

In the improvements making about the castle, it
 was necessary to move a large hill of lime stone, and
 as the readiest way, Colonel Burton is burning it to
 lime. The kiln, like most I have seen in Ireland, is
 a very good one. It is in the shape of an egg, 19 feet deep,
 and 9 diameter in the swell; when new it burnt 400 bar-
 rels in a week, each three bushels; but as the lining is
 worn, it is now from 350 to 400. A ton of culm,
 which

which costs at Drogheda 13s. and 2s. freight from thence, burns 50 barrels of lime. Quarrying and burning the stone is three-halfpence a barrel, expences in all 5½d. and it sells at the kiln for 7d. The stone is laid in layers eight or nine inches thick, and is always kept supplying at top and emptying at bottom. The kiln cost 35l. building, and it employs three hands.

LORD Conyngham's seat, Slaine Castle, on the Boyne, is one of the most beautiful places I have seen; the grounds are very bold and various, rising around the castle in noble hills, or beautiful inequalities of surface, with an outline of flourishing plantations. Under the castle flows the Boyne, in a reach broken by islands, with a very fine shore of rock on one side, and wood on the other. Through the lower plantations are ridings, which look upon several pleasing scenes, formed by the river, and take in the distant country, exhibiting noble views of waving cultivated hills, with the castle finely situated in the midst of the planted domain, through which the Boyne winds its beautiful course. Under Mr. Lamber's house, on the same river, is a most romantic spot; rocks on one side, rising in perpendicular forms very boldly; the other steep wood, the river bending short between them like a land-locked basin. Lord Conyngham's keeping up Slaine Castle, and spending great sums, though he rarely resides there, is an instance of magnificence not often met with; while it is so common for absentees to drain the kingdom of every shilling they can; so contrary a conduct ought to be held in the estimation which it justly deserves.

JUNE 30th, rode out to view the country and some improvements in the neighbourhood: the principal of which are those of lord chief baron Foster, which I saw from Glaston Hill, in the road from Slaine to Dundalk. Adjoining to it is an extensive improvement of Mr. Fortescue's; ten years ago the land was let at 3s. 6d. now it is a guinea, which great work was done by the tenants, and lime and fallow the means pursued. These and other improvements, with the general increase of prosperity, has had such an effect in employing the people, that Colonel Burton assured me, 20 years ago, if he gave notice at the mass houses that he wanted labourers, in two days he could have 2 or 300; now it is not so easy to get 20, from the quantity of regular employment being so much increased. I observed weavers looms in most of the cabbins: went into one, and the man informed me that he could weave a web 65 or 66 yards long, and 26 inches wide, at 8d. a yard price, in a week. 34 to 36 lb. of yarn makes it, which costs 15d. per lb. he and his journeyman could earn 7 or 8s. a week by it. He paid 4l. 4s for the grazing of a cow, a rood of potatoe garden and the cabin. They were burning straw, which I forgot to remark I have found very common where there is no turf: a most pernicious custom, it is in fact what I have often heard literally reported, that they burn their dunghills in Ireland. Passed through several farms much improved, and found great attention given to fences, the ditches very large, and the banks well planted. Lord Boyne's estate appears to be very rich, and the tenants beyond the common run. The country is well wooded, and has an appearance of some of the best parts of England. Walked into Mr. Maurice's fields; he is a considerable farmer,

mer, buys his fattening cows in may from 3l. to 6l. 6s. sells fat, from august to christmas, with 30s. profit ; he has laid down a meadow to grafs with so much care, that the expence was 10l. an acre. In one of his fields he sowed red clover, with the third crop of corn it failed, but an amazing sheet of white clover came, which I saw, and was, indeed, surpris'd at such a proof of the excellency of the soil, even under such exceeding bad management ; but not a human being that I have met with has any notion of sowing clover with the first crop.

RETURNING to Slaine, dined with Mr. Jebb, and viewed the mill, which is a very large edifice, excellently built ; it was begun in 1763, and finished in 1766. The water from the Boyne is conducted to it by a wear of 650 feet long, 24 feet base, and 8 feet high, of solid masonry ; the water let into it by very complete flood gates. The canal is 800 feet long, all faced with stone, and 64 feet wide ; on one side is a wharf completely formed and walled against the river, whereon are offices of several kinds, and a dry dock for building lighters. The mill is 138 feet long, the breadth 54, and the height to the cornice 42, being a very large and handsome edifice, such as no mill I have seen in England can be compared with. The corn, upon being unloaded, is hoisted through doors in the floors to the upper story of the building, by a very simple contrivance, being worked by the water-wheel, and discharged into spacious granaries which hold 5000 barrels. From thence it is conveyed, during seven months in the year, to the kiln for drying, the mill containing two, which will dry 80 barrels in 24 hours. From the kiln it is hoisted again to the upper story, from thence to a fanning machine for re-dressing to

get out dirt, soil, &c. And from thence, by a small sifting machine, into the hoppers, to be ground, and is again hoisted into the bolting mills, to be dressed into flour of different sorts, pollard and bran. In all which progress, the machinery is contrived to do the business with the least labour possible: it will grind with great ease 120 barrels, of 20 stone each, every day. Beginning in 1763, for a few years, about 13,000 barrels *per ann.* were ground, of late years, up to 17,000 barrels. It may be observed, that this mill is very different from the English ones, they not being under the necessity of kiln drying or dressing. The expence per barrel, of the drying in coals and labour is 3d. and the waste is 1-20th in the weight: but the contrivance reduces the expence of dressing to a trifle. The whole charge of manufacturing the wheat into flour in mere labour, is 9d. a barrel, and the 3d. drying makes 1s. The barrel weighs 20 stone, 14 lb. to the stone, of which

Flour	14 ft 8 lb.
Bran	3 4 ft.
Pollard	1 ft 6 lb.
Dirt, waste, grinding and dressing	1 ft 6 lb.

On average of the year - - - 20 ft.

The waste, in re-dressing the corn (which is what the farmers ought to do) is about 3 lb. a barrel. The pollard Mr. Jebb tried, for six years, in giving to pigs. Bought in stores in september, at 7s. to 20s. each, and put them to pollard given wet, about the thickness of gruel; it could have been sold for 2s. a barrel of 6 stone, and in feeding, it did not produce more than 30d. a barrel; pork from 18s. to 20s. per

cwt.

cwt. Thinks it would not more than pay the 2s. a barrel if pork was 40s. per cwt. Tried also breeding, bought Berkshire sows fed upon the pollard, but it did not answer better than the other method. The pork fed upon it was soft, and not near so good as potatoe fed. Mr. Jebb thinks, however, that if he had had plenty of straw for litter, as the stone-yard foundered them, and clover for the summer food, that it would have paid the 2s. a barrel, but not more, the dung being then the profit. The sows did exceedingly well, and the pigs also in rearing. The corn is brought to the mill from all the country round to the distance of 10 miles. The farmers send it in, and leave the price to be fixed. The raising the mill and offices, complete, cost 20,000l. has established, in a fine corn country, a constant market; and has preserved the tillage of the neighbourhood, which would have declined from the premium on distant carriage. The flour is sent to Dublin, and the manufacturing country to the north about Newry, &c. It employs constantly from 10 to 12 hands; the common ones at 6s. 6d. a week. They sow much earlier, and the corn is drier of late years than at first.

THE parish of Monknewton, in the county of Meath, lying between Drogheda and Slaine, nearly midway, formerly belonging to the rich abbey of Mellisfont (whose beautiful gothic ruins are in the neighbourhood), consists of very fine corn land, and mostly belongs to John Baker Holroyd, Esq; of Sheffield-place, in the county of Sussex: a gentleman, who having favoured me before with excellent intelligence in that country, took pleasure in repeating it on occa-

sion of my Irish tour. Towards Mattock-bridge, the soil is a light rich loam, but the north western is a strong fertile clay. The whole estate had been let out to two or three considerable people for 61 years, and they underlet it in the usual style of the country. The leases expired in 1762, when Mr. H. visited the estate, and found it as ill used as it possibly could be. However, great rents were offered. He declined the proposals of several considerable men, to take the whole to underlet at rack rents as before, knowing that the same wretched husbandry and poverty must continue if he did, although it would secure his rents most effectually. He was very well satisfied with the rents offered by persons who would reside on the estate (dividing with them the profits of the middle man) and voluntarily engaged to pay for the masonry and principal timber of farm houses, barns, stables, &c. He made large ditches, planting them with quick, round each farm. He allowed half the expence of inner fences. He provided an excellent lime-stone quarry in the neighbourhood, besides lime-kilns on different farms. He built about the centre of the estate a very large double kiln, calculated to burn 1000 barrels per week. He allows 30s. for every acre on which 100 barrels of unslacked lime shall be laid, within a certain number of years, and on condition that the land hath a winter and summer fallow at the same time. In some instances he allows 40s. per acre, which is nearly the whole expence of liming; and in some instances, when 100l. is laid out on an house, he allows 50 or 60l. but as yet no great advantage is taken of his encouragement to build. He endeavoured to prevent the scattered style of building; to have the barns, stables, &c. built round
a farm

a farm yard, and that the house should have a story or floor above. Some objected, that a floor raised an house too high, and exposed it too much : the estate is rather low as to situation, and sheltered by hills on every side, but I understand some considerable houses are to be built next year. The common farmers, however, prefer living on the ground, surrounded by mud walls, have no idea of the chearfulness of large windows, but let in barely light enough to do their business through apertures not much better than loop-holes ; neither has the encouragement to lime been taken advantage of in the degree it might be expected. Mr. H. is an hearty well-wisher to Ireland, and ready to embrace any scheme of improvement for its advantage. He wished to make some return to the country for spending the income of the estate out of it. He was ready to allow almost the whole of every expence that could be laid out on the lands, knowing the poverty of the common Irish residing tenantry, and their characters to be such, that they could not improve them as they should be ; yet I understand they are not much better satisfied than other tenants : and the rent seems high. The farms were mostly let at a time when the spirit of taking land was greater than at present, but it is far from an high rent for land so circumstanced and situated, built and improved at the expence of the landlord. There is much in the neighbourhood, especially towards Drogheda, let at two guineas, and three pounds and upwards, per acre. He is a great friend to agriculture, has considered the subject much, and was very anxious to introduce something like the best English husbandry on his Irish estate, but that is still at a great distance. He endeavoured to break through the barbarous custom of having the whole farm laid waste

waste at the end of a lease, and every inch ploughed up, but could not carry his point farther, than by giving great present advantages to the tenants, to induce them to agree, that the third part of the farms should not be ploughed the last four or five years of the lease. The soil is so good, that if used ever so ill in that time, it will recover, and there will be a very good sward. According to the common method of leasing lands in many parts of Ireland, the country is nearly waste and unprofitable, to the great prejudice of the public, during seven or eight years in every 31 years, the usual lease. For the tenant, not restrained by proper clauses, nor obliged to any particular management, or to manure, ploughs up every thing, and for some time before the expiration of his term, pursues the most ruinous system for the land, disposed even to lose some advantage himself, rather than his successor should have any benefit; consequently, the three or four last years the crops hardly pay expences, and three or four years more are lost before it can be brought into any condition. Good and straight roads are made through and across the estate, and bridges built where necessary. Such a disposition in the landlord to improve, must do much for the country. Notwithstanding the attention that has been paid to the estate, the young white thorn hedges, (of which a great quantity had been planted, and which grew most luxuriantly) serve as spring food for sheep and other cattle. The estate is now divided into farms, from 70 to 150 acres, and let in general for 31 years, at 40s. and 35s. per acre, some part at 30s. and a small part at 26s. The lands are tythe free, and there are no taxes of any kind paid by the tenants, except assessments for making and repairing the roads of the barony, which some years have amounted to 10d.

rod per acre, and is laid on by the grand jury at the assizes.

July 1st, left Slaine, taking the road towards Kells.

Called at Gibbstown, where Mr. Gerard has one of

the most considerable farms in the country. He very

kindly shewed me it, and explained the management.

His bullocks he buys in October at 10l. each, and sells

them in summer with 4l. profit: the cows in May at

5l. 10s. and sells them before winter from 30 to 40s.

profit. He mows 100 acres of hay for the sheep and

bullocks, and keeps good after-grass besides. The

bullocks in winter have nothing but hay and grass,

and are always in the fields, there being no such thing

in this country as foddering yards for winter feeding.

Two bullocks require three acres. The fields being

generally large, a proportion of stock is thrown to

each, which are left to fat; but if any do not seem to

thrive well, they are drawn from them and put into

better food. The sheep Mr. Gerard buys in October,

three years old wethers, at 25s. he begins to sell in

April, and by August they are generally gone at about

35s. on an average. Fattening, in this manner, he

thinks more advantageous than ewes and lambs.

The winter sheep have hay in bad weather. The

best cattle come from Galway, Mayo, and Roscommon.

Mr. Gerard thinks the cross of the English breed in

Ireland has done good, except in the hides, which are

much thinner from them. A good hide is worth

3 or 4l. but in common from 30 to 40s. The soil of

this neighbourhood is, most of it, a dry stoney loam,

which wants no draining; and whenever red clover is

sown and left, the white comes in perfect sheets, but

the bottoms are strong land, wet and bad. All the

dry lands would do perfectly well for turnips; Mr.

Gerard

Gerard tried them, and got fine crops, but the poor stole them in car loads, which made him leave off the practice. Under the boggy bottoms there is a very fine white marle, of a sort I have not seen in England; it is under four feet of black bog, and lies in a stratum, 14 feet thick, on blue gravel; it is always found under the black, not the red bog; it cuts with turf spades, quite like white butter, but in the air falls into a sandy powder to appearance: it is uncommonly light in the hand, and has a very great effervescence with acids, as I tried. Mr. G. has marled 100 acres, and found the benefit immense. Lays 2 or 300 barrels an acre, and always on tillage. He has made many covered drains with stones, the effect of which is great; and he has his fields fenced in the most perfect manner by deep ditches, high banks, and well planted hedges. One third of the county of Meath, he thinks, is let to sub-tenants; a farm of 1100 acres near him is so, and does not produce a tythe of what it ought to do. For stocking, &c. a grazing farm of 1000 acres, 2000l. does; 3000l. would do it well. *Corn-acres* are common here, which is to let the land for 3l. 15s. to 4l. an acre to the poor for three or four crops; who generally sow oats, but sometimes wheat.

REACHED Lord Beftive's in the evening, through a very fine country, particularly that part of it, from which is a prospect of his extensive woods. No person could with more readiness give me every sort of information than his lordship. The improvements at Headfort must be astonishing to those who knew the place 17 years ago; for then there were neither building, walling, nor plantations; at present almost every thing is created necessary to form a considerable residence. The house and offices are new built; it is
a large

a large plain stone edifice. The body of the house is 45 feet long, and the wings each 180. The hall is $31\frac{1}{2}$ by 24, and 17 high. The saloon of the same dimensions; on the left of which is a dining room 48 by 24, and 24 high. From the thickness of the walls, I suppose it is the custom to build very substantially here. The grounds fall agreeably in front of the house, to a winding narrow vale, which is filled with wood, where also is a river, which Lord Bective intends to enlarge; and on the other side the lawn spreads over a large extent, and is every where bounded by fine plantations. To the right, the town of Kells picturesquely situated, among groups of trees, with a fine waving country and distant mountains; to the left, a rich tract of cultivation. The plantations are numerous, more thriving I have nowhere seen; the larch, spruce, and beech, exceed the rest, but the bark of all is clear, and there cannot be a better sign of a tree's health and vigour. His Lordship transplants oaks 20 feet high without any danger, they appear to thrive perfectly well, but he takes up a large ball of earth with the roots. He confirmed what had been mentioned to me before, that the way to make our own firs equal to foreign, is to cut them in june, and directly to lay them in water for three or four months. This was done by his father 35 years ago, and the buildings raised of them are now fully equal to those built of Norway fir. Besides these numerous plantations, considerable mansion, and an incredible quantity of walling, his lordship has walled in 26 acres for a garden and nursery, and built six or seven very large pineries, each 90 feet long. He has built a farm-yard 280 feet square, surrounded with offices of various kinds.

His

His idea is not that of *farming*, but improving the lands about the house for beauty, and for preserving the plantations; if let, they would be destroyed. Other lands he keeps to bring into order for re-letting. He applies his grass to fattening cows, which he buys in may, from 3l. 15s. to 4l. 10s. and in five or six months sells them, with 35s. or 40s. profit. His mules are 16 or 17 hands high, and he finds them of incomparable use: they are in their prime at 20 years old, and good even at 35; he has had them 16 years, and in that time, with the work they have done, would have worn out three sets of horses; besides being kept upon less food. Of hay he gets 17 or 18 load an acre of 4 cwt. In the breed of his cattle, Lord Beftive is very attentive: he sent into Craven for a prime bull, and got one, which cost 36 guineas at a year old, and is indeed a very fine beast. This is the breed, which from much experience he prefers, as well for milking as for fattening. The Holderness he has tried, (having a fine bull of it,) but is determined to have nothing more to do with them: the flesh is black and coarse; and though they give more milk than the others, yet it will not make a quantity of butter proportioned. The common cow of the country is as good as any for mere milking.

ALL Lord Beftive's gates are iron, which cost him 5l. 5s. and as wooden ones come to 3l. 3s. he finds them the greatest improvement. In his tillage he pursues the practice of the country, which is, 1. Fallow. 2. Wheat. 3. Oats. 4. Oats, but does not take the last crop of oats. He limes 160 barrels an acre on his fallow, but the common quantity is only 80,

80, by means of which, and better husbandry, he has 10 barrels an acre of wheat, and 20 of oats, while the common crops are seven of the one, and 12 of other. Marle he has found an excellent manure for dry soils.

THE general rent of the neighbourhood 20s. Of the whole county 18s. 6d. Land sells at 21 years purchase at rack rent. The cottars plant great quantities of potatoes, giving for rent 4l. 10s. the crop from 70 to 100 barrels. This culture has increased 20 fold within 20 years. All the hogs in the country are fattened on them half boiled. In July, August, and September, they have great numbers of Connaught labourers; they are called *spalpeens*. *spal*, an Irish, is a scythe, and *peen* a penny; that is, a mower for a penny a day, the case 80 years ago.

LORD Bective's father was one of the greatest improvers I have heard of. He bought 10,000 acres of bog and rough land in the county of Cavan, much of it at the rent of only 20d. an acre: he drained and improved the bog, though a red one, divided it, and brought it to be such good land, that it is now 15s. an acre; part of it was dry rocky land, which he divided by walls.

JULY 3d, took my leave of Lord Bective, and went to Druestown, the seat of Barry Barry, Esq; but as I was not fortunate enough to find him at home, I could only observe in general, that he had a large lawn very well laid down to grass, and had made a pretty lake with a shrubbery on the banks of it. About this neighbourhood all the good land is ap-

plied

plied to grazing, and lets from 25 to 35s. an acre, the rest 20s. But towards Fore I passed by much that was greatly inferior, for when laid down, (that is left to itself) no white clover, or very little came, and it seemed quite uninclosed; yet this I found was at 14 or 15s. I observed here that the cottars were not so well cloathed as hitherto.

REACHED Packenham-hall, pleasantly situated, with much old wood about it, where Lord Longford received me with the most friendly attention, and gave me very valuable information. For the following particulars of the neighbouring husbandry I am obliged to him. Farms rise from 20 to 1000 a year, in general 60 or 80l. but few larger. The soil heavy loam eight or nine inches deep upon from 12 to 18 inches of yellow *till*, under which, lime-stone gravel 10 feet deep on rock, also dry sound gravel, lets from 15 to 20s. Average rent of the county of Westmeath, exclusive of waste, 9s. including it 7s. The courses of crops most common:

1. Potatoes

2. Bere

3. Oats

4. Oats

5. Oats

1. Potatoes

2. Flax

3. Oats

4. Oats

5. Oats

and oats longer if the land will bear it, even till they do not get three barrels an acre, and then leave it to cover itself. Among the better farmer; 1. Fallow manured with lime-stone gravel. 2. Wheat or bere.

3. Oats. 4. Oats.

THEY

THEY sow one barrel of wheat, and get seven per acre; sow one and a half of bere, and get 15 or 16; of oats one and a half, the crop 10 or 11 at first, and decreases every year till nothing but weeds. The cottars all sow flax on patches of land, dress and spin it, it is woyen in the country for their own use, besides some sold in yarn. The little farmers keep no sheep. The chief improvements of wastes are the bottoms adjoining to the bogs, which they drain and cover with gravel or earth, that produce good potatoes. No other way of laying land to grass, than sowing red clover and leaving it. Meadows for the year let from 3 to 4l. an acre, merely for the hay, upon which they get 10 load an acre. Grass mostly applied to fattening cows, which they buy in may at 4l. and sell in november at 6l. one acre of good land will fat them, but if not good one and a half. Milch cows give two or three gallons of milk a day, and yield 40s. produce per year by butter and calf. Fed in winter with oat-straw, and hay. An ox hide, if it weighs 100lb. 3d. per lb. if not, 2d. halfpenny. A cow hide 2d. halfpenny if above 60lb. if less, 2d. Dearer than they were. The tillage is all done with horses, use four in a plough, and stir better than half an acre a day. The price with harrowing 10s. an acre. The depth six inches; for winter corn they lay the lands in round ridges four or five feet broad. Keeping a horse the summer at grass 1l. 10s. The hire of a car, horse, and driver, 10d. a day. In hiring and stocking farms, they will take one of 50 acres, without any thing but four horses and six cows, depending for food upon what they bring; for labour upon themselves and the cottars that come with them; and make none or scarcely any profit. Land sells at 21 years purchase rack rent; rents have fallen 25 per cent.

cent. since 1770. In 1768, 1769, and 1770, they were much above their value. Tythes are compounded, wheat, bere and barley 7s. oats 5s. meadow 2s. sheep 3d. No tea drank. Leafes common are, 31 years to catholics, and three lives to protestants. Great part of the country let to middle men, who relet it to sub-tenants, generally with a profit greater than they pay the landlord. Carry their corn to the mill of Carrick five miles off. Rents of cabbins 20 to 25s. with a rood of ground, if land with it, which is generally the case, they pay 30s. an acre. For grazing a cow 25s. and for a horse 30s. No emigrations. Twenty to one of the lower people roman catholics.

EXPENCE of building a cabin 40s. and for a farm of 50 acres 5l. They will hire farms and take all the buildings upon themselves. Both cottars and little farmers are in a worse situation than they were 20 years ago. All of them have turf for firing, and one week's labour in a year will supply a cabin. Cutting turf 3d. a kish or cubical yard. A ditch six feet wide, and five deep, 20d. In burning lime, a kish of turf burns two barrels of lime. Sells at the kiln at 6d. a barrel.

Among Lord Longford's farms in this country are the following:

276 acres

PACKENHAM.

49

	£.	Let	£.
276 acres;	75 rent,	1736	worth now 250
410	112	ditto	410
242		ditto	240
150 bog }	70	ditto	240
600		ditto	600
400 bog }	118	ditto	600
150	49	ditto	140
122	41	ditto	100
270	95	ditto	270
330	100	ditto	100
377	334	1773	334
60	16	1739	40
383	150	1749	300
655		ditto	700
1500 bog }	225	ditto	700
303	121	1750	300
325	236	ditto	320
457	186	1756	400
	1928		4504

From which table may be seen the comparative value of lands in 40 years: it has more than doubled in 30.

Grass land, gravelled, will let to the poor at 5l. for potatoes. Very good old grass, without any manure, 4l. 4s. and as much more for the second year for flax: after that, would yield 3l. for oats, and they will give 5l. for dunged stubble, for potatoes. The expences, per acre, as follow:

Vol. I.

E

Rent,

	£.	s.	d.
Rent,	5	0	0
Four barrels of seed,	1	0	0
Planting,	3	0	0
Taking up	1	10	0
	<hr/>		
	10	10	0

The crop 80 barrels. Prime cost 2s. 6d.

LORD Longford has some black bottom land, as it is called here, partially drained 10 or 12 years ago, some of it tolerably dry : other parts so wet, that a beast can scarcely venture on it with safety. One part is a reddish bog, three feet deep, which 12 years ago was burned a foot deep, and at the same time open drains made ten feet wide at top, and seven deep, the bog being formed by the drains into beds forty feet wide. The spontaneous rubbishy heath chiefly, which is now coming fast again, but it never has been cultivated ; where the fires were made are spots of fine white clover. This land at present would let for nothing, but it is highly improveable. His Lordship has had two acres and an half of turnips on it, and the crop was exceedingly good : he has always remarked in burning, that wherever there were many ashes, there are sure to be good turnips. The two acres and an half kept seven bullocks, each 8cwt. and sixty sheep, three months. On four acres of the same sort, he has now a crop of turnips sown ; it was drained ten years ago. This summer he dug it over, levelled it, and burnt the spit in great heaps : this digging costs 3l. 10s. an acre ; the burning 1l. It was harrowed with bullocks, which, with seed, &c. he reckons 10s. in all 5l. an acre, which expence he

he knows by experience is repaid by the turnips. In harrowing, if a bullock in a soft place sinks in, they slip the harness off, and set the others to drag him out by the horns, fixing the rope round the horns as in hoisting an ox into a ship. I remarked, upon this boggy bottom, a small plantation of Scotch firs, which do very well, but larch better. Willows do not thrive. A gentleman inclosed and drained four acres, which he planted with them, and they shot away for four years, but then all died. They do, however, very well in the turf itself, if the upper surface of sponge is cleared away. In improving any bogs, Lord Longford thinks the tillage should be renewed alternately with grass every six or seven years, or it will cover again with heath (*erica*), burning the best way.

His Lordship has tried cabbages several times, and he finds that while they last they are better than turnips, but prefers the latter on account of the short duration of the former. Limestone gravel he has tried on a large scale; lays 1000 loads an acre, at 11. 10s. expence, if it is in the field. The effect is prodigious wherever it is laid. On a bare rocky spot in the front of the house, where the earth had been cleared away, and there was no vegetation but of weeds, some gravel was spread, and it brought up an exceeding thick coat of white and red clover. It is also infallible in destroying moss.

JULY 4th, Lord Longford carried me to Mr. Marly, an improver in the neighbourhood, who has done great things, and without the benefit of such leases as protestants in Ireland commonly have. He rents 1000 acres; at first it was 20d. an acre, in

the next term 5s. or 250l. a year, and he now pays 850l. a year for it. Almost the whole farm is mountain-land; the spontaneous growth heath, &c. he has improved 500 acres. His method has been to grub up the heath, and then to summer fallow it, and to manure with limestone gravel 1400 load an acre, at the expence of 2l. 2s. Upon this he sows wheat or bere, gets nine barrels an acre of wheat, and 19 of bere, then oats 12 to 15 barrels. After which he fallows again, and finishes the second or third course with red clover, sown with barley or oats after wheat. If this takes very well, he leaves it to turf itself. White clover comes as fast as the red wears out; for the first four or five years it supports only sheep; but as it improves, which it does very fast, he grazes it with black cattle. Lime he has tried instead of gravel, 160 barrels an acre at 1s. but it did not better than gravel at one-fourth the expence. In gravelling, the beginning of the pit is good for nothing; the deeper it is dug, it is so much the better. It will not do twice, but will last 8 crops, with 2 fallows. Just such an account would be given of marle in Norfolk, if they practised so bad a course of crops. Any manuring with so powerful an alcaly as marle leaves the ground after an exhausting course of crops, in much worse order than it found it. Would but the Irish farmers pursue the Norfolk system, of never letting two crops of white corn come together, they would not then find their gravel exhausted in eight crops; it would probably last 20, and in that management they might gravel again and again. He has the white light marle under boggy bottoms, and has used much of it, but does not find it answer so well as gravel.

He is very attentive in fattening his wether sheep; he buys in october at 30s. or 32s. each, begins at christmas to feed them with bran and oats, one quart of each per diem, and continues it three months: has sold at 3l. 5s. but on an average at 40s. This he thinks better and cheaper than turnips which he has tried; but finds too dear in the expence of drawing, and if fed in the field, thinks half of them lost; the oats at 5s. 6d. a barrel; the bran at 1s.

	l.	s.	d.
90 Days oats 1l. say 3 bushels, at 5s. 6d.			
a barrel		0	4
90 Ditto bran		0	0
		0	4
		10	

It was with regret I heard that the rent of a man who had been so spirited an improver, should be raised so exceedingly. He merited, for his life, the returns of his industry. But the cruel laws against the roman catholics of this country, remain the marks of illiberal barbarism. Why should not the industrious man have a spur to his industry whatever be his religion; and what industry is to be expected from them in a country where leases for lives are general amongst protestants, if secluded from terms common to every one else? What mischief could flow from letting them have leases for life? None; but much good in animating their industry. It is impossible that the prosperity of a nation should have its natural progress, where four-fifths of the people are cut off from those ad-

vantages which are heaped upon the domineering aristocracy of the small remainder.

IN conversation with Lord Longford, I made many inquiries concerning the state of the lower classes, and found, that in some respects they were in good circumstances, in others indifferent; they have, generally speaking, such plenty of potatoes, as always to command a bellyful: they have flax enough for all their linen, most of them have a cow, and some two, and spin wool enough for their cloaths; all a pig, and numbers of poultry, and, in general, the complete family of cows, calves, hogs, poultry, and children, pig together in the cabbin. Fuel they have in the utmost plenty; great numbers of families are also supported by the neighbouring lakes, which abound prodigiously with fish; a child with a pack-thread and a crooked pin, will catch perch enough in an hour for the family to live on the whole day, and his Lordship has seen 500 children fishing at the same time, there being no tenaciousness in the proprietors of the lands about a right to the fish; besides perch, there is pike upwards of five feet long, bream, tench, trout of 10lb. and as red as a salmon, and fine eels; all these are favourable circumstances, and are very conspicuous in the numerous and healthy families among them. Reverse the medal: they are ill cloathed, make a wretched appearance, and, what is worse, are much oppressed by many who make them pay too dear for keeping a cow, horse, &c. They have a practice also of keeping accounts with the labourers; contriving by that means, to let the poor wretches have very little cash for their year's work. This is a great oppression: farmers and gentlemen keeping accounts with the poor is a cruel

cruel abuse: so many days work for a cabbin---so many for a potatoe garden---so many for keeping a horse---and so many for a cow, are clear accounts which a poor man can understand, but farther it ought never to go; and when he has worked out this, the rest ought punctually to be paid him every saturday night. Another circumstance mentioned was the excessive practice they have in general of pilfering. They steal every thing they can lay their hands on---and I should remark, that this is an account which has been very generally given me: all sorts of iron, hinges, chains, locks, keys, &c. ---gates will be cut in pieces, and conveyed away in many places as fast as built; trees as big as a man's body, and that would require ten men to move, gone in a night: Lord Longford has had the new wheels of a car stolen as soon as made. Good stones out of a wall will be taken for a fire-hearth, &c. though a breach is made to get at them. In short, every thing, and even such as are apparently of no use to them---nor is it easy to catch a thief; for they never carry their stolen goods home, but to some bog-hole. Turnips are stolen by ear loads; and the ears of two acres of wheat ~~cut~~ off in a night. In short, their pilfering and stealing is a perfect nuisance! How far it is owing to the oppression of laws aimed solely at the religion of these people, how far to the conduct of the gentlemen and farmers, and how far to the mischievous disposition of the people themselves, it is impossible for a passing traveller to ascertain. I am apt to believe, that a better system of law and management would have good effects. They are much worse treated than

the poor in England; are talked to in more opprobrious terms, and otherwise very much oppressed.

LEFT Packenham-hall. Two or three miles from Lord Longford's, in the way to Mullingar, the road leads up a mountain, and commands an exceeding fine view of Loch Derrevaragh, a noble water eight miles long, and from two miles, to half a mile, over; a vast reach of it, like a magnificent river, opens as you mount the hill. Afterwards I passed under the principal mountain, which rises abruptly from the lake into the boldest outline; the water there is very beautiful, filling up the steep vale formed by this and the opposite hills. Reached Mullingar, It was one of the fair days. I saw many cows and beasts, and more horses, with some wool: the cattle were of the same breed that I had generally seen in coming through the country. July 5th, left Mullingar, which is a dirty ugly town, and taking the road to Tullamore, stopped at Lord Belvidere's, with which place I was as much struck as with any I had ever seen. The house is perched on the crown of a beautiful little hill, half surrounded with others, variegated and melting into one another. It is a most singular place; spreads to the eye a beautiful lawn of undulating ground margined with wood; single trees are scattered in some places, and clumps in others; the effect so pleasing, that were there nothing further, the place would be beautiful; but the rest of the canyas is admirably filled. Lake Ennel, many miles in length, and two or three broad, flows beneath the windows. It is spotted with islets, a promontory of rock fringed with trees shoots into it, and the whole is bounded by distant hills.

Greater

Greater and more magnificent scenes are often met with, but no where a more beautiful or a more singular one.

From Mullingar to Tullespace, I found rents in general at 20s. an acre, with much relet at 30s. yet all the crops, except here, were very bad, and full of weeds. About the latter named place, the farms are generally from 100 to 300 acres, and their course, 1. Fallow. 2. Bere. 3. Oats. 4. Oats. 5. Oats. Great quantities of potatoes all the way, crops from forty to eighty barrels. The road before it comes to Tullamore leads through a part of the bog of Allen, which seems here extensive, and would make a noble tract of meadow. The way the road was made over it was simply to cut a drain on each side, and then lay on gravel, which, as fast as it was laid and spread, bore the cars: along the edges is fine white clover. Part of Tullamore is well built. I passed through it to Captain Johnston's at Charleville, to whom I am indebted for the following account of the husbandry of the neighbourhood. Farms, around Tullamore, are commonly 100 to 300 acres, but some smaller, and some of 5 or 600. The soil is generally a dry, sound, gravelly loam, lets from 12s. to 18s. average 16s. five miles every way around. Average of land let in the whole county 15s. exclusive of bog. He thinks that one-seventh of the county is bog or mountain; but the latter pays from 1s. 6d. to 3s. The course of crops: 1. Oats on lay, sow one barrel and an half, get ten to fifteen. 2. Fallow. 3. Wheat, sow three-fourths to one barrel, get four to seven barrels. 4. Oats. And then pease sometimes added. 1. Potatoes on grass with dung, or burn-bating. 2. Bere,

2. Bere, three-fourths of a barrel, get twelve to twenty barrels. 3. Wheat. 4. Oats. 5. Fallow. Some pare and burn for turnips; and then potatoes at 6l. an acre rent. They are exceedingly late in sowing, not finishing their wheat and bere till after christmas. They sow rape on low grounds by the edge of bogs, upon paring and burning for seed, get twelve to fifteen barrels an acre, worth from 12 to 20s. a barrel. They sow it on the ground without covering after ploughing, and the rougher the land the better. Sow rye after it, and then oats, getting good crops; and lay down with grass seeds from lofts, or ray grass, or clover and trefoile. For turnips or fallow plough twice or thrice, lay on no manure, nor hoe, get very bad crops. If they pare and burn they plough twice. They eat them with sheep either drawn or on the land. Very little clover. Flax is sown very generally, from small patches to three or four acres, doing the whole themselves, both spinning and weaving. About good friday is the time of sowing, but later bad. The *sky* farmers, that is the petty ones, let potatoe ground for it, at 6l. an acre to cottars. Great quantities of potatoes in the trenching way, and all the dung is used for them. The farmers let the poor have land for nothing, upon condition of their dunging it, which all do that have not fields of their own. They pay from 4 to 6l. dunged, or for turnip land fed with sheep, which they prefer, the potatoes being drier and better. The apple potatoe is most esteemed, because they are great bearers, last through the summer, and have been kept even two years. Not much lime used, having been tried, but has not answered; limestone gravel on lay to be broken up, has a very great effect. The expence 10 or 15s. The grass is chiefly applied to heifers, or
store

store bullocks; the first sold in small parcels at home, the latter at Ballynasloe or Bannagher. They buy them in at a year or two years old; the first 30 to 50s. the latter from 55 to 57s. keep them a year and four or five months, sometimes only a year: in a year they will make, by the first, 25 to 30s. and from 30 to 40s. by the others. Wherever the land is good enough, a few cows are bought in for fattening, in may at 11. 15s. to 5l. and sold with 40s. a head profit. The poor people all rear calves. Many sheep bred; the best farmers breed and sell three years old wethers fat at michaelmas, from 18 to 24s. if in the spring from 24 to 44s. Clip from 5 to 7lb. of wool. The tillage is done by oxen, four in a plough, not half an acre a day; the sky farmers sometimes will put a horse and a cow in. Oxen are reckoned best. Hire of a boy, horse and car 1s. 1d. The sky farmer will take 40 or 50 acres, with three or four cows and a horse or two, and five guineas in his pocket. Tythes are compounded, 5s. for winter corn, 3s. for spring corn, 25s. for 1000 sheep, and 5s. for mowing-ground.

LAND sells for 20 years purchase rack rent, has fallen two years purchase in seven years, and the rent from 3s. to 5s. in the same time. County cess 6d. Very few middle men left. Cottages with half an acre, let for 20s. with two acres, which are common, 40s. No emigrations. Religion of the lower classes all roman. Not one cottar in six has a cow about towns; but in the country half of them have. Most have a pig, and much poultry. They are not more thieving than extends to a few turnips and cabbages for their own use, nor that to any excess. Many of the poor have reclaimed much bog, the premiums of the Dublin society having induced them to do it; these

these are now 50s. an acre: they perform it by gradual draining, either from cutting turf, or making bounds, or from drains purposely done: they get to peat, and burn it four to six inches deep, at 20s. an acre, sow bere, rye, or potatoes; the bere does best, and next year another crop of corn; and then another burning, and two more crops, the potatoes are wet, but will do for seed, and they will escape the frost in a box, when they are killed in the high lands. They pay nothing for the bog, having land adjoining. They lay the improved spots down to grass, sowing seeds, but the crop is generally very thin and poor, and after a year or two, burn it again; sometimes put a little dung or gravel on the grass, and plant it with potatoes. Some have put in potatoes upon a red bog, with no other preparation, than laying a poor, sharp, sandy gravel on it, and got tolerable crops.

Mr. JOHNSTON has cultivated cabbages for several years. In 1772 he had one acre, in 1773 two and a half, and since that, between one and two acres every year; the great Scotch sort which he sows in february, and plants in four feet rows, and 18 inches from plant to plant, the beginning of june. If they are not in the ground then, the crop will not be good. Ploughs for them twice, and dungs richly in the furrows. Horse hoes twice or thrice, and hand weeds; they rise from five to 12 lb. but have always began to burst in september. Has used them for fattening sheep, that would not fatten on grass; also for bullocks, which thrive perfectly well. The leaves (with great care in picking) were given to milch cows, but the butter tasted. Finds that the principal use of them is for bringing on cattle that will not finish at grass, and to be used all before christmas. Barley that
has

has been sown upon cabbage land which succeeded potatoes, a vast crop, 24 barrels an acre. Turnips Mr. Johnston has had for these ten years, from one to four acres, and has always applied them to fattening sheep, for which purpose he finds them excellent; and best to feed in the field, because fast in the ground for the sheep to bite at, provided there is some grass for them to lie on. Has deviated from the common late sowing of wheat, putting his in the beginning of September, and finds his harvest so much earlier, that his is in the *haggard* (reek yard) when others are cutting. His tillage he performs with only two horses. Mr. Johnston is a great friend to the Irish cars: he carries 10 to 12 cwt. of turf, three statute kishes of hard stone turf, each horse 10 turns a day, or 20 miles, and fed on grass alone.

JULY 6th went to Rathan, where Lord Shelburne has placed a Norfolk bailiff, Mr. Vancouver, for the management of a farm, who brought with him a plowman, plough, harrow and tackle. The design does honour to the nobleman who formed it; and Mr. Vancouver is not likely to disappoint him; he is a sensible, intelligent, active man, who went through all the manual part of farming in a seven year's apprenticeship to a great farmer in Norfolk. I found him just what I could wish, disgusted neither with the country nor the people, pleased and animated with the prospect of improvement before him, and had no doubt of success. He was going on perfectly well; ploughing off the turf of a boggy bottom, adjoining to a great bog; burning it in small heaps, and intending immediately to plough and sow turnips, of which he will have 12 acres this year, and purposes having many more the year after; he has cut some
very

very long drains into the bog, and expects to make it excellent land, though instead of ploughing it first for burning, he must dig it; I am clear he will not be disappointed: he has a fine field to work upon, for Lord Shelburne has 4000 acres of bog here. The high parts of the farm, are a rough lime stone land, but very dry and sound; he designs in winter, grubbing the rubbish, burning all the stone into lime, and ploughing it for turnips the following year. Let me observe, that this is the right conduct of rough land, which should always be brought into turnips first, and not fallowed for wheat, as all the Irish improvers do, who follow their wheat with so many crops of spring corn, that their soil is presently exhausted. If turnips are had, dung is gained, and the land in order, which paves the way to every thing else. Too much cannot be said in praise of this undertaking of Lord Shelburne's. An opening is made to a new field in husbandry, which I foresee may prove of infinite consequence to the kingdom in general. Mr. Vancouver being acquainted with several modes of improvement in England, and perfectly versed in the Norfolk husbandry, is placed with great judgment where he can exert both. Perhaps I was the better pleased with this improvement, from being instrumental in procuring his lordship the person who is executing it. Near this place is a farm of 150 acres, and 1500 bog, to be let on a lease for ever, at 130*l*. a year. Went from Rathen to the Glebe, a lodge belonging to Dean Coote, and from thence to Shaen castle, near Mountmellick, his residence; passed near large tracts of mountain, waste and bog; and not far from a great range of the bog of Allen. Saw but little good corn; they were burning some boggy bottoms in order to fallow for bere; but it should be for turnips.

For

For the following particulars I am indebted to the obliging attention of the dean. About Shaen castle farms of 40 or 50 acres are very common, some few rise to 3 or 400. The soil is either lime-stone, lime-stone gravel, or moor; lets at 13s. an acre on a medium. The course, 1. Fallow 2. Wheat, sow one barrel, produce 5½. 3. Peas, sow one barrel, and get 5 to 10. 1. Fallow. 2. Wheat. 3. Oats, sow two barrels, get 8 to 15. Also, 1. They burn moors for turnips: no hoeing; draw them for sheep. 2. Barley or bere, sow one barrel of bere, get 8 to 18. Sow of barley one barrel, get as much as of bere. 3. Oats. 4. Oats; after which they leave it to graze itself. Also on moory lands, rape or rye, instead of, or after turnips. Flax is sown by all poor people and little farmers for their own use. Potatoes are so much planted, that all the dung of the country is applied to them; some few plant them with the plough, but it does not well, unless the land is summer fallowed: the chief culture is in the gardens of the cabbins, for they hire no land of the farmers for potatoes. No sheep folding. Lime-stone gravel is much used for tillage land, and the benefit found great for six or seven crops.

THE grass is applied to fattening, dairying, and sheep. Dairies from 30 to 40 cows are common here; they keep them in their own hands. An acre and an half of middling grass for a cow. Some make butter, but none if the cheese is good. 1½ cwt. of cheese is the produce per cow, price from 25 to 30s. per cwt. with 1l. 1s. for the calf, at five or six weeks old; rear very few. The fattening system is to buy in at 3l. to 6l. in april, may and june, and sell out with 30s. or 42s. profit to christmas. Flocks of sheep rise to

5 or 600; the profit, lamb at 5 to 9s. and the ewe's wool 4lb. In the winter they are on the walks, unless in frost and snow, when they get some hay or turnips. Wool 15 to 17s. a stone, but within 15 years was 10s. 6d. It is bought up by combers, who keep spinners in the country to spin it into yarn, which is sold to factors for foreign markets. They are much troubled with the rot upon the moors, and a wet season will rot them even upon lime-stone land. Plough mostly with horses, often using four, for the second time of fallowing six: they do $\frac{3}{4}$ of an acre, four bullocks, which gentlemen and good farmers use, will do $\frac{1}{2}$, price 7s. an acre. For winter corn they throw the lands narrow, and arched up: no shovelling furrows, but strike them with the plough. Keeping a horse 3l. 3s. a year, and a working bullock 40s. Break their fallows from november to february. Hire of a horse, boy, and car from 1s. 1d. to 1s. 4d. In hiring and stocking farms 3l. an acre they reckon necessary. Land sells at 20 years purchase; has fallen in five or six years 2s. to 6s. an acre, in general 5s. Tythes are compounded for, wheat 7s. bere 6s. barley 5s. oats 3s. 6d. mowing ground 3s. pease 2s. 6d. No tea in the cabbins, nor yet a bellyful of potatoes. They have an acre of land and a cottage for 1l. 1s. to 1l. 10s. and about $\frac{1}{4}$ of that in potatoes, they buy when they have not of their own, both oats, meal, or potatoes; a barrel of potatoes will last a man, his wife, and four children a week; one barrel of oats will yield 1 cwt. of oatmeal, which sells at 8s. 6d. to 10s, and will in *stir-about* last them a week, that is the same time as a barrel of potatoes. They in general keep a cow at 1l. 1s. to 1l. 10s. but they must buy 12 or 14s. of hay for her. They also keep a pig on offal. Stealing is very common, they take every thing

thing they can lay their hands on, yet are not so poor here as in Clare and Tipperary. Corn all carried to Dublin for the premium. Population evidently increases. No emigrations. Religion of the lower classes all catholic. A poor man's firing 14s. or 15s. Expence of building a cabbin 3l. 3s. of stone and slate 20l. all for a farm of 50 acres of stone and slate 300l.

IN conversation upon the subject of a union with Great Britain, I was informed that nothing was so unpopular in Ireland as such an idea; and that the great objection to it was increasing the number of absentees. When it was in agitation, 20 peers and 60 commoners were talked of to sit in the British parliament, which would be the residence of 80 of the best estates in Ireland. Going every year to England would, by degrees, make them residents; they would educate their children there, and in time become mere absentees: becoming so they would be unpopular, others would be elected, who, treading in the same steps, would yield the place still to others; and thus, by degrees, a vast portion of the kingdom now resident would be made absentees; which they think would be so great a drain to Ireland, that a free trade would not repay it. I think the idea is erroneous, were it only for one circumstance, the kingdom would lose, according to this reasoning, an idle race of country gentlemen, and in exchange their ports would fill with ships and commerce, and all the consequences of commerce; an exchange that never yet proved disadvantageous to any country.

THE dean's improvements of bog ground are extensive; he drained very completely, and then

VOL. I.

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ploughed

ploughed or dug it for burning, upon which sowed meslin, which succeeded very well, yielding 13 barrels an acre. Then oats ploughed for, and got 10 barrels; sowed hay seeds, ray grass (*holium perenne*) and clover (*trifolium pratense*) before the improvement began it was not worth 1s. 6d. an acre, but made it 14s. Another part of the bog was levelled and burnt, the ashes spread, and turnip seed harrowed in, did very well, fed sheep with them; after which, clay and lime-stone gravel spread on it, 1000 load, or 40s. an acre, and grass seeds sown, which made it worth 1l. 1s. an acre. Turnips, Dean Coote has had these 20 years, both in the drill and broad-cast, and found the drill method much the best, but owing, I apprehend, to the hoeing of the broad-cast not being well performed. Used them always for feeding sheep, and found the eating equal to a coat of dung. He folded his sheep for two years, but could not bring his people to continue it without too much trouble. Lime he has tried much on the lime-stone ground, but did not find it answer at all. Would recommend in the improvement of bogs, to begin with one great drain round the intended improvement, 12 feet wide at top, cut to the gravel, and four feet wide at bottom; then to cut cross drains into that, which also ought to go down to the gravel: leave it for a year, if it is bad; then turn it up with the spade or plough, burn it, and sow turnips or rape, and do the same again next year, with a second burning, after which oats may be had, and laid down to grass, which will be good, but much better if gravelled. Dean Coote has received from the Dublin society several gold medals for the improvement of bog, culture of turnips, &c.

JULY 8th, left Shaen Castle, and took the road towards Athy; breakfasted with Dean Walsh, at General Walsh's, in that gentleman's absence. The general is a considerable farmer, and a yet greater improver; he has built 12 new farm houses, also 30 cabins that have 90 cows, and each two to four acres, at 20s. an acre. He has tried potatoes with the plough, instead of the trenching way, he manured two acres of strong land with 400 load of dung, which he ploughed in, and then dibbled the sets in, 15 inches square, he hand-hoed them twice, and got 176 barrels per acre. The common crops do not exceed 90 barrels. He has generally seven or eight acres of turnips, and two or three of cabbages, with which he feeds both cattle and sheep, and with great success. He practices tillage principally to bring his land into order, and throws it into the following course: 1. Fallow. 2. Wheat. 3. Clover or trefoile, two years.

WHEN he sows barley on potatoe lands he gets 20 barrels an acre. One article in the management of his estate cannot be too much praised: wherever he lets a farm that has only a common ordinary cabin on it, he obliges the new tenant to build a good house of stone and slate, allowing him considerably towards the expence. The common course of crops here is, 1. Fallow. 2. Wheat, yielding from seven to nine barrels. 3. Barley, 15 barrels. 4. Oats, 15 to 20. 5. Left for grafs.

THE poor here have all of them potatoes, as far as their dung will go: when they hire grafs land

to plant them on, the account of an acre is as follows :

	£.	s.	d.
10 barrels of seed, at 3s. 4d.	-	-	1 13 4
Planting, cutting, &c.	-	-	1 10 0
Second trenching	-	-	0 15 0
Weeding	-	-	0 2 6
Taking up, 40 men a day at 7d.	-	-	1 3 4
Rent	-	-	3 10 0
			<hr/>
			8 14 2
			<hr/>

The average crop 80 barrels, which is 2s. 2d. a barrel prime cost. They have them the year round in plenty; they are cheaper than oatmeal, and are liked better. They sow very little flax, some none at all. Many of them are master of a car and horse, with which they work for hire; also one or two pigs, and much poultry by means of their potatoes.

LEAVING General Walth's, passed a fine wood on the right, within a wall. See much good wheat and bere to Athy. Going through that town the road leads on the banks of the river Barrow, which winds through the vale to the right; the verdure beautiful, and the country pleasant. Pass over much light dry sandy gravelly loam, as fine turnip land as I ever saw, but not one cultivated in the country. It is this soil all the way from Athy to Carlow; lets from 16s. to 20s. an acre. The courses are: 1. Fallow. 2. Wheat, yielding five or six barrels. Also, 1. Fallow. 2. Wheat. 3. Oats, and grass seeds, or left to turf itself. They use lime with success: they have gravel, but that does best for strong lands, and this upon land

land formed for 20 barrels an acre of barley after turnips. These people by the Norfolk husbandry would make a crown where they now receive sixpence.

Called on Mr. Vicars at Ballynakill, a considerable grazier, who farms near 2000 acres in different counties. His husbandry consists chiefly of feeding sheep and bullocks: one sheep system is to keep ewes for breeding, the sale being three year old wethers, some of the oldest ewes and the wool. The wethers sell from 20 to 28s. each, and the quantity of wool 2½ to a stone (the stone of wool in Ireland 16lb.) Another system is to buy in ewes in autumn, and to sell the lambs fat, and then the ewes. Grazing, in this country, consists in buying bullocks in october, at 5 or 6l. each; give them some hay in bad weather, and sell them fat, with 40 or 50s. profit. Cows are bought in in may, and sold fat from harvest to autumn. Many dairies, not let to labourers, but kept for making butter; a cow will make 1cwt. at 2l. 10s. and the calf 4s. The cabbins let here at 20s. each, and 30s. they pay for the pasturage of a cow, which they all keep. The account of potatoes is:

	£.	s.	d.
Rent, - - - -	5	0	0
Eight barrels of seed, 4s. 6d. - - - -	1	16	0
Putting in - - - -	2	10	0
Taking up - - - -	1	10	0
	<hr/>		
	10	16	0
	<hr/>		

The average crop 60 barrels, prime cost therefore 3s. 6d. Average rent of the whole county of Carlow, 15s.

PASSED on to Mr. Browne at Brownshill, who has built a very good and convenient house, in an open situation, commanding an extensive prospect; gained here several articles of information relative to the same neighbourhood as Mr. Vicar is in. They plough chiefly with oxen, four in a plough, but do not half an acre a day, which is a quantity four horses will do easily. Tillage is very much increased here, and almost intirely owing to the inland premiums; the people also increase much. Tythes are, Wheat 5s. Bere 4s. Barley 3s. Oats 2s. 6d. Mowing-ground 3s. and of sheep in kind. Throughout the county of Carlow the hiring tenant is in general the occupier, except in small pieces. In front of Mr. Browne's house is a mountain, which I remarked was cultivated very high up the side; and upon enquiry found that it was done by cottars, who pay the high rent of 10s. an acre in order to improve: they pare it with a plough, and burn the furrow, lime and fallow it for wheat, of which they get six barrels per acre; after which they sow oats, and get 10 barrels, laying down with grass seeds. Some they reclaim with potatoes. Much of the mountain is wet, so that they are forced to drain it with open cuts.

MR. BROWNE keeps 800 sheep, which consist of 200 ewes; 100 ditto, two years old; 100 ditto, three years old wethers; 200 ditto one year old, ditto hoggits; 200 lambs: and he sells every year

	£.	s.	d.
120 three years old wethers, at 25s.	150	0	0
80 culled ewes, at 16s.	-	64	0
220 stone of wool, at 16s.	-	176	0
		<hr/>	
		390	0

In the winter they eat 25 tons of hay.

HEARD of a very spirited farmer at Carlow, a Mr. Hamilton, on whom I should have called, but was told that he was absent. He has gone so much into the turnip husbandry as to have 100 acres in a year, and eight or ten acres of cabbages; sows them much on pared and burnt land; keeps by their means a vast stock of cattle; stall-feeds many bullocks, buying straw for litter in order to make dung; besides which he buys all the dung he can, and burns much lime, taking in short every means to keep his lands clean and in good heart. Such an example ought to be powerful in creating imitators, but I could not find it had any such effect among the common farmers.

JULY 9th, left Brownshill, and taking the road to Laughlin-bridge, called on Mr. James Butler at Ballybar, a very active and intelligent farmer upon a considerable scale. He has generally four or five acres of cabbages, which he uses for his fat wethers of four years old; the produce of them he finds greater, and the sheep like them better than turnips. He has sometimes 20 acres of turnips, and hoes them all. This year none.—It is a sign the cultivation is not well understood in a country, when a man has

one year 20 acres, and another none. A principal part of the advantage of the consumption is lost, if the cattle system is not regularly arranged with an eye to the turnip crop. Mr. Butler buys every year forty-year old beasts, at from 30 to 40s. Keeps them till three years and an half old, and then sells them fat. Also 20 bullocks, at 5l. which he sells fat at 8l. His cows he buys in may, from 3l. to 3l. 10s. each. The profit 40s. a head. The best grass will carry a bullock an acre. His sheep system is to buy three year old wethers in october, at 25s. each, he begins to sell in the spring, and continues through the summer, at 34s. In the winter they have hay. His improved course of crops is : 1. Turnips, or cabbages. 2. Barley, yielding 20 barrels an acre. 3. Clover, and upon that grasses afterwards to lay down. The courses general are, 1. Fallow. 2. Wheat $7\frac{1}{2}$ barrels an acre. 3. Barley. 4. Oats. 1. Potatoes. 2. Wheat. 3. Barley, 14 barrels an acre. 4. Oats, 12 ditto. 5. Fallow, and then as above. Their lands let at 30s. an acre, being a very good stoney loam. Most in this neighbourhood were grazing ones, carrying bullocks and sheep ; but since the premiums on land-carriage corn, they have been broken up, and are now as one to 20. The number of sheep particularly is so much lessened, that only four persons, Mr. Bunbury, the two Mr. Bernards, and Mr. Keef, had, 20 years ago, more sheep among them than there are now in the whole county.

HAVING taken a short walk with Mr. Butler, passed on to Captain Mercer's mill at Laughlin-bridge. I had been told that this was one of the most considerable mills in Ireland ; and had a letter of recommendation

commendation to Mr. Mercer, which through carelessness I had lost. I did not care, however, to pass without seeing the mill, drove down to it, and was in the awkward situation of explaining myself to be a traveller — what I wanted — from whence I came — and so forth : but the good-nature and politeness of Mr. Mercer presently dissipated the disagreeableness of those first explanatory moments. He shewed me the mill, and explained every thing with the utmost civility. It is very large and convenient, grinds 15,000 barrels a year, and if there was a brisker demand could do yet more. I found the same necessity of kiln-drying here as at Slaine, and made the same observation, that the wheat was none of it of a fine bright colour, like what is common in England. The farmers also dress their corn in so slovenly a manner, that there is the same necessity of dressing it over again, for which very powerful machines are contrived. The whole is very well calculated for saving labour in every operation, and only eight hands are employed. After the mill was built, Mr. Mercer made many alterations of his own, to render it more simple and effective, which have fully answered his expectations. The barrel of bran here is four stone, and sells for 8d. Mr. Mercer has tried feeding cattle with it, but could never make more than 6d. by it : has also fattened hogs with it; but in no use will it pay more than 6d.

NOTHING interesting from hence to Kilfaine. I saw some very good crops of wheat, but the country is bleak, and wants wood. Reached Gervas Parker Bushe's, Esq; at that place in the evening, who received me with a politeness equalled only by the value of his intelligence.

JULY

JULY 10th, accompanied Mr. Bushe, in a ride thro' the neighbourhood, to view the country, which is a great corn one. Called at several farms, and made enquiries into the culture, &c.

VIEWED Mount Juliet, Lord Carrick's seat, which is beautifully situated on a fine declivity on the banks of the Nore, commanding some extensive plantations that spread over the hills, which rise in a various manner on the other side the river: a knole of lawn rises among them, with artificial ruins upon it, but the situation is not in unison with the idea of a ruin, very rarely placed to effect, unless in retired and melancholy spots. The river is a very fine one, and has a good accompaniment of well-grown wood. From the cottage a more varied scene is viewed, cheerful and pleasing; and from the tent, in the farther plantation, a yet gayer one, which looks down on several bends of the river.

It was impossible for any one to take more pains, that I should be well informed of every particular concerning husbandry, than Mr. Bushe; the following particulars I owe to his most ample intelligence. About Kilfaine, farms rise generally from 100 to 200 acres, among many very small ones, but scarcely any so high as 400; the soil a dry sound gravelly loam, with many stones, much inclinable to sand. As fine turnip land as any in the world; as to rent, there are three-fifths of it good land, at 20s. an acre; one-fifth worse, and fit for pasture, 15s. and another mountain and land of little value: the first nothing; the other 5s. average 3s. and general average 16s. The courses of crops are, 1. Fallow. 2. Wheat, sow one barrel, and get on an average six. 3. Barley, the crop ten barrels. 4. Oats, the crop eight ditto: or, 1. Fallow. 2. Wheat.

Wheat. 3. Oats. 1. Fallow. 2. Wheat, which surprized me much, for it is very contrary to the spirit of successive crops. 1. Potatoes. 2. Wheat. 3. Barley. 4. Oats. 1. Potatoes. 2. Bare crop ten barrels. 3. Barley. 4. Oats.

They plough three or four times for wheat, sowing from the end of september to the middle of november. The first ploughing is not till may or june, and sometimes, as I have seen, not till july, which is terrible management. They never sow barley till april, and often may. Pease they only sow on land which they think is not in heart for oats, and the crops miserable, as may be supposed. They sometimes burn low rushy bottoms, and sow rape on them, but not often. No such thing as turnips among the common farmers, though they have an excellent turnip-soil. Mr. Bushe has some every year, with which he feeds his sheep. No clover. Mr. Bushe has had it for some time, and found the greatest advantage from it. A little flax for their own use. Potatoes very generally cultivated, and take all the dung of the farm; the poor, who raise what dung they can, have land of the farmers gratis, if they manure it well, in order to plant potatoes, which here is the most general culture of that root. The account.

	£.	s.	d.
Dunging 240 load	-	-	1 0 0
12 barrels of seed, at 3s	-	-	1 16 0
Planting with a plough	-	-	0 16 0
Weeding	-	-	0 4 0
Taking up	-	-	1 8 0
			<hr/>
			5 4 0
			<hr/>
			Plough

Plough them in, and then trench the furrows. Crop 40 barrels. The best sort are the yellow potatoe, also the *wife* for produce. The *Turk*, which is the English *Howard* or *Cluster*, they plant on poor land, and never bestow any dung on it, yet get great crops; but they reckon it a very bad sort. They are beginning to cultivate the mountains; the inclosures creep up the sides gradually; pay 2s. to 4s. an acre, but improve to be worth 8. or 10s. They do it with limestone gravel, or begin with potatoes, and dung; the gravel they carry two miles to three. Lime is a common manure; lay 80 barrels an acre; does best on light land, and gravel on stoney. Burn it themselves. One barrel of culm, at 2s. burns 5 barrels of lime; 16 miles from the coal-pits. Quarring and burning 3d. a barrel. Drawing stone to the kiln 1d. or 1½d. ditto. Limestone gravel is very general, and the benefit prodigious. They have some they call lime-stone which is a sort of sand-stone that breaks very easily. Lay 200 to 300 loads, 6 or 7 cwt. each, an acre. Four horses will draw 120 load a day, each load 1½ a barrel, and the distance 40 perch, this is 180 barrels; or 720 bushels, which is 24 loads, at 30 bushels each; which, I believe, is more than four horses usually perform in England, and is a proof, that giving every horse his own work expedites it. Raising and screening the sand from large stone, 1½d. a car load. It will last in strong heart several years, and be perceived 15. As to laying land to grass, they in general do it only by leaving the soil to cover itself with the spontaneous growth. Grass land for meadow is very valuable. About the town of Kilkenny, 3l. to 5l. an acre; and at a distance there is a custom of the little tillage-farmers hiring the crop of hay of a gentleman or farmer, and giving him, merely for

for the hay, 3l. to 5l. an acre, they taking all the expences upon themselves, and not having the after-grass. Dairies common on the hills on coarse grass, at 10s. or 12s. an acre. A good cow will give three gallons and an half of milk a day. As they sell all the butter-milk, they have little notion of keeping hogs, on account of dairies. In winter, the cows that give milk have hay; the others straw: all run abroad. Few grazing farms, but in the barony of Cranagh there are some. Value of a cow's hide 15s. to 18s. per cwt. Sheep are kept in small parcels; they sell store wethers two or three years old, at 16s. to 20s. in june or july. Wool about 3 to a stone. The price of wool 16s. but 20 years ago, 12s. No such thing as folding. They plough generally with four horses, and do above half an acre a day, laying their lands on 6 feet ridges. They give their horses oats. Hire of a car, a horse, and a driver, 1s. 4d. In hiring and stocking a farm, they reckon a year's rent necessary; if they have less, they never know whether they are to sink or swim. Land sells at 21 years purchase; not quite so well as it did 5 or 6 years ago, the rents fallen since march 1775, a seventh. County cess not a shilling an acre. Tythes compounded generally, wheat 8s. bere 7s. barley 7s. oats 4s. mowing ground 4s. pease 4s. No manufactory of consequence; but blankets are made at Kilkenny. The leases are all for 21 or 31 years, as the whole country is roman catholic. Much land is in the occupation of under tenants, who hire of middle men, but generally under old leases; when land was at its heighth, many hired on speculation, but the fall has put a great stop to it. A cabbins and an acre let at 3l. 3s. and if more land 40s. or 42s. an acre; the cottars have many of them a cow,

a cow, and some two, and a pig and some poultry. In respect to their condition, they have their belly full of potatoes, and their children eat them all day long; all cattle lay with them in the cabbins. Scarcity of fuel is the worst circumstance. No emigrations. The general state of the poor will appear from the following account of Mr. Bushe's hay-makers; he was obliging enough to make them all appear in array, and answer to the questions I put to them. The following are the averages of the particulars they gave me.

No. of souls in each cabin	6 $\frac{1}{2}$
Acres of land	5 $\frac{3}{4}$
Cows	1
Horses	$\frac{1}{2}$
Hogs	1 $\frac{1}{4}$

6 $\frac{1}{2}$ souls per cabin, are a population one would not imagine could be resident in such mean habitations, but they swarm with children to the eye of the most inattentive observer. They have a practice here which much deserves attention: three, four, five, seven, &c. little farmers will take a large farm in partnership. They must be equal in horses, cows, and sheep, and tolerably so in other circumstances; they divide every field among themselves equally, and do all the labour of it upon their separate accounts; assisting each other mutually: they never throw the whole into one stock and divide the profit, from suspicions, I suppose they have of one another. Price of implements. A car 1l. 10s. a boarded one 2l. 2s. A plough 1l. 5s. A pair of harrows 15s. Building a labourer's cabin in the common manner 5l. Ditto, of stone and slate, 30l. For a farm complete of 50 acres, of stone and slate 100l. to add

50 acres

50 acres 30l. more. Poor's firing 1l. 10s. but hedges much broken.

MR. BUSHE is very attentive in the culture of his domain; he puts his potatoes in with the plough, and finds they answer much better than the common manner; making them and turnips the preparation for barley, with which he sows clover, and upon that wheat: this is the Norfolk husbandry, and there cannot be better. It should be extended over all the arable land wherever it is practiced. He has this year a very fine crop of wheat sown upon one earth on an old lay, and no damage from the red-worm. In the spring he confines his cattle to the farm-yard for making dung, and mixes it in composts with sand and lime. He has an economical practice which deserves attention. It is the stew-hole in his kitchen being a perpetual lime-kiln. It is a fire kept night and day at less than no expence, for the lime more than pays the culm. It is not at all unwholesome, and the fire, for culinary purposes, is excellent.

JULY 11, left Kilsfaine: Mr. Bushe accompanied me to Woodstock, the seat of Sir W. Fownes. From Thomastown hither is the finest ride I have yet had in Ireland. The road leaving Thomastown leads on the east side of the river, through some beautiful copse woods, which, before they were cut, must have had a most noble effect, with the river more winding at the bottom; the country then opens, and you pass most of the way for six or seven miles to Innisteague, on a declivity shelving down to the river, which takes a varied winding course, sometimes lively, breaking over a rocky

a rocky bottom, at others still and deep, under the gloom of some fine woods, which hang down the sides of steep hills. Narrow slips of meadow of a beautiful verdure in some places form the shore, and unite with cultivated fields that spread over the adjoining hills, reaching almost the mountain tops: these are large and bold, and give in general to the scene features of great magnificence. Passed Sir John Hasler's, on the opposite side of the river, finely situated, and Mr. Nicholson's farm on this side, who has very extensive copses, which line the river. Coming in sight of Sir W. Fownes's, the scenery is striking, the road mounts the side of the hill, and commands the river at the bottom of the declivity, with groups of trees prettily scattered, and the little borough of Innesteague, in a most picturesque situation; the whole bounded by mountains. Cross the bridge, and going through the town, take a path that leads to a small building in the woods, called Mount Sanford; it is at the top of a rocky declivity almost perpendicular, but with brush wood growing from the rocks. At the bottom is the river, which comes from the right, from behind a very bold hanging wood, that seems to unite with the hill on the opposite shore: at this pass the river fills the vale, but it widens by degrees, and presents various reaches, intermixed with little tufts of trees, the bridge we passed over is half hid. Innisteague is mixed with them, and its buildings backed by a larger wood, give variety to the scene. Opposite to the point of view there are some pretty inclosures, fringed with wood, and a line of cultivated mountain sides, with their bare tops limit the whole.

TAKING

TAKING my leave of Mr. Bushe, I followed the road to Ross. Passed Woodstock, of which there is a very fine view from the top of one of the hills, the house in the centre of a sloping wood of 500 English acres, and hanging in one noble shade to the river, which flows at the bottom of a winding glen. From the same hill in front it is seen in a winding course for many miles through a great extent of inclosures, bounded by mountains. As I advanced, the views of the river Nore were very fine, till I came to Ross, where from the hill, before you go down to the ferry, is a noble scene of the Barrow, a vast river flowing through bold shores, in some places trees on the bank half obscure it; in others it opens in large reaches, the effect equally grand and beautiful. Ships sailing up to the town, which is built on the side of a hill to the water's edge, enliven the scene not a little. The water is very deep, and the navigation secure, so that ships of 700 tons may come up to the town; but these noble harbours, on the coast of Ireland, are only melancholy capabilities of commerce: it is languid and trifling. There are only four or five brigs and sloops that belong to the place.

HAVING now passed through a considerable extent of country, in which the white boys were very common, and committed many outrages, I shall here review the intelligence I received concerning them throughout the county of Kilkenny. I made many inquiries into the origin of those disturbances, and found that no such thing as a leveller, or white boy, was heard of till 1760, which was after the landing of Thurot, or the intended expedition of M. Conflans. That no foreign coin was ever seen among them, though reports to the contrary were

circulated; and in all the evidence that was taken during ten to twelve years, in which time there appeared a variety of informers; none were taken, whose testimony could be relied on, that ever proved any foreign interposition. Those very few who attempted to favour it, were of the most infamous and perjured characters. All the rest, whose interest it was to make the discovery, if they had known it, and who concealed nothing else, pretended to no such knowledge. No foreign money appeared; no arms of foreign construction; no presumptive proof whatever of such a connection. They began in Tipperary, and were owing to some inclosures of commons, which they threw down, levelling the ditches; and were first known by the name of levellers. After that they begun with the tytheproctors (who are men that hire tythes of the rectors) and these proctors either screwed the cottars up to the utmost shilling, or re-let the tythes to such as did it. It was a common practice with them to go in parties about the country, swearing many to be true to them, and forcing them to join, by menaces, which they very often carried into execution. At last they set up to be general redressers of grievances----punished all obnoxious persons who advanced the value of lands, or hired farms over their heads; and having taken the administration of justice into their own hands, were not very exact in the distribution of it. Forced masters to release their apprentices, carried off the daughters of rich farmers, ravished them into marriages, of which four instances happened in a fortnight. They levied sums of money on the middling and lower farmers, in order to support their cause, by paying attorneys,

nies, &c. in defending prosecutions against them; and many of them subsisted for some years without work, supported by these contributions. Sometimes they committed several considerable robberies, breaking into houses, and taking money, under pretence of redressing grievances. In the course of these outrages, they burnt several houses, and destroyed the whole substance of men obnoxious to them. The barbarities they committed were shocking. One of their usual punishments (and by no means the most severe) was taking people out of their beds, carrying them naked in winter, on horseback, for some distance, and burying them up to their chin in a hole filled with briars, not forgetting to cut off one of their ears. In this manner the evil existed for eight or ten years, during which time the gentlemen of the country took some measures to quell them. Many of the magistrates were active in apprehending them, but the want of evidence prevented punishment, for many of those who even suffered by them had not spirit to prosecute. The gentlemen of the country had frequent expeditions to discover them in arms; but their intelligence was so uncommonly good by their influence over the common people, that not one party that ever went out in quest of them was successful. Government offered large rewards for informations, which brought a few every year to the gallows, without any radical cure of the evil. The reason why it was not more effective was, the necessity of any person that gave evidence against them, quitting their houses and country, or remaining exposed to their resentment. At last their violence arose to a height which brought on their suppression. The catholic inhabitants of Ballyragget, six miles from

Kilkenny, were the first of the lower people who dared openly to associate against them; they threatened destruction to the town, gave notice that they would attack it; were as good as their word, came 200 strong, drew up before a house in which were 15 armed men, and fired in at the windows; the 15 men handled their arms so well, that in a few rounds they killed 40 or 50. They fled immediately, and ever after left Ballyragget in peace---indeed they have never been resisted at all, without shewing a great want of both spirit and discipline. It should, however, be observed, that they had but very few arms, those in bad order, and no cartridges. Soon after this they attacked the house of Mr. Power, in Tipperary, the history of which is well known. His murder spirited up the gentlemen to exert themselves in suppressing the evil, especially in raising subscriptions to give private rewards to whoever would give evidence or information concerning them. The private distribution had much more effect than larger sums which required a public declaration; and government giving rewards to those who resisted, without having previously promised it, had likewise some effect. Laws were passed for punishing all who assembled, and (what may have a great effect) for recompensing, at the expence of the connty or barony, all persons who suffered by their outrages. In consequence of this general exertion, above 20 were capitally convicted, and most of them executed; the goals of this and the three neighbouring counties, Carlow, Tipperary, and Queen's-county, have many in them whose trials are put off till next assizes, and against whom sufficient evidence for conviction, it is supposed, will appear. Since this all has been quiet, and no

outrages

outrages have been committed: but before I quit the subject, it is proper to remark, that what coincided very much to abate the evil, was the fall in the price of lands, which has taken place lately. This is considerable, and has much lessened the evil of hiring farms over the heads of one another; perhaps also the tythe-proctors have not been quite so severe in their extortions: but this observation is by no means general; for in many places tythes yet continue to be levied, with all those circumstances which originally raised the evil.

FROM Rofs took the road towards Wexford, and found, upon enquiry, that I was in quite a different country from what I had left, the soil not near so high let, for several miles it is from 5s. to 15s. and is in general dry sound land. This soil, so excellent in the turnip culture, never lets at its real value in unimproved countries: it is the introduction of turnips alone that ascertains that value. In 8 or 9 miles I found some rising to 20s. The course: 1. Fallow. 2. Wheat. 3. Oats. 4. Barley. 5. Oats. 6. Barley. 7. Oats. With such management, no wonder the rents are low. There is a great quantity of rough land overrun with furze (*ulex europæus*). They burn them here, and I remarked uncommon quantities of bog-wood at the doors of the cabbins: yet their turf-grounds are rather boggy bottoms than bogs.

LAI D at Taghmon, at as good an inn as the appearance of the place could allow of, though I was told it was very good. There was a bed in which I rested in my cloaths, but the stable had neither rack

nor manger. I should have gone on to Wexford, but found that Mr. Neville, member for that town, to whom I had a letter of recommendation, in order to procure intelligence concerning the baronies of Bargy and Forth, was in England; I therefore determined to turn off here, and make a circuit through them to get to Wexford. The landlord seemed to know something of the country. I asked him what gentlemen were in it that took any pleasure in husbandry; he named several, and from his accounts I determined to call on Mr. Nun, at St. Margaret's.

JULY 12th, sallied from my inn, which would have made a very passable castle of enchantment in the eyes of Don Quixote, in search of adventures in these noted baronies, of which I had heard so much. They were completely peopled by Strongbow; and from having retained a sort of Saxon language peculiar to themselves, without any of them understanding the Irish, in all probability the country was at that time uninhabited or desolate. I had been told that they were infinitely more industrious and better farmers than in any other part of Ireland, and this account was confirmed to me by several common Irish farmers I met with upon the road. It was not long before I was in the barony of Bargie, and I was much surprised to see no great appearance of any thing better than common. In one respect, I remarked the vilest husbandry, which was exhausting the land by successive corn crops, and then leaving it cover itself with weeds, and grass by degrees: for it is to be observed, that I have not seen, in Wexford, any of that fine land I have mentioned so often, which, if thrown by in this manner, is almost immediately covered with
white

white clover. Land, I found, let five or six miles from Taghmon, from 10s. to 20s. an acre; they have no fallow, but sow oats and barley, and beans and pease, (which they call black corn) in succession for many years, and without any such practice as hoeing. And though the land is light, dry and sound, not a turnip is sown; so that, in 21 miles, I saw not a single fallow for them. Sowing beans and pease is, however, common, and they have farther a notion that doing so refreshes the land. I saw no beans in Ireland till I came here. They told me their crops were, barley and oats 6 to 12 barrels. Beans 8 to 10 barrels. They use both marle and lime; of the former they lay 400 car loads per acre, and it lasts 12 crops. Much of their wheat is sown on lays, marled and dunged, and the crops were very good. Potatoes not the food of the people the year through, as in other parts of Ireland; they live on them only in the winter, and have oatmeal the rest of the year. Barley is the crop that succeeds them.

ADVANCING further I had fresh accounts.—Wheat they sow on lays, with only one ploughing, and get from 7 to 10 barrels an acre; and of oats and barley, on good land, sometimes so high as 15 to 17 barrels. They lime much, and usually take but 4 or 5 crops of corn running, upon which they seemed to pride themselves much, as being good farmers. Farms in Bargie generally from 40 to 100 acres. Here I understood there was a part of the barony of Shelmal inhabited by quakers, rich men and good farmers. A farmer I talked to said of them: *The quakers be very cunning, and the devil a bad acre of land will they hire.* From this account I wished for a recommendation

dation to one of these sagacious friends. I observed all the way I went, that the cabbins were generally much better than any I had seen in Ireland: large ones, with two or three rooms, in good order and repair, all with windows and chimnies, and little styes for their pigs and cattle. As well built as common in England. Entering Forth I did not perceive any difference, but the soil is a reddish good loam without stones. I went to St. Margaret's, and introduced myself to Colonel Nun, who gave me the following particulars, with the assistance of a neighbouring farmer. Barony of Forth and Bargie farms generally 20 to 80 acres; but many of them hired in partnership, and when the children marry are subdivided into smaller portions. Rent of the two baronies on an average a guinea. The courses:

1. Potatoes.

2. Flax or barley.

3. Leave it for a sod, but
most sow clover and
grasses.

1. Beans on lay.

2. Barley.

3. Oats.

4. Barley.

5. Clover or trefoile, for
2, 3, or 4 years.

1. Summer fallow.

2. Barley.

3. Beans.

4. Oats,

5. Grasses.

1. Fallow and marle.

2. Wheat.

3. Barley.

4. Oats.

5. Barley.

6. Clover, &c.

For wheat they plough but once on the lay, harrow in the seed and shovel the furrows; sow in october $\frac{1}{2}$ to $\frac{3}{4}$ of a barrel: some use spring wheat sown in march. The crop generally is 10 to 20 barrels. For
barley,

barley, which is their principal crop, they plough twice; sow $1\frac{1}{2}$ barrel, get 10 to 15 barrels an acre. For oats they plough but once, sow $1\frac{1}{2}$ barrel, and get 10 or 12 barrels an acre. For pease or beans they plough but once, sow many beans on a lay on one ploughing, $1\frac{1}{2}$ barrel per acre; chopping and dressing the clods fine, get 5 to 20 barrels an acre, and sow barley after it. No turnips among the common farmers, though much of their land is fine, dry and sound, but some is very wet. Flax enough for their own use. Potatoes they have of late began to put in with the plough, but in common they are in the trenching way. Their crops are very good. Marle is very much used: it is a blue sort. They lay large quantities on the sod, let it lie a year or two before they plough it up, which they find better than ploughing it directly. They marle the same land often; they drain only with open cuts, no hollow ones done. Cattle very little attended to: only a cow or two for the use of their families, and a few sheep; but they keep a great many pigs. All that live near the sea, turn their pigs to the shore for fish, sea-weed, &c. Manure with sea-weed, which they lay on for barley; some fresh from the sea, others lay it in heaps to rot, but many reckon it best fresh. Ploughing all with horses, four in a plough; lay their lands round to shoot off the water. In ploughing grass for corn, they leave $\frac{1}{3}$ of every ridge unploughed in the middle, but covered up with the furrows; in order for tilling the year following, and think they get the best crops there. Execrable!

LAND sells from 22 to 25 years purchase; nor have rents fallen at all, rather the contrary. County cess

cess 8d. an acre. Tythes either gathered or appraised every year. Leases generally three lives, or 31 years. Carry their corn to Wexford. The people increase prodigiously. Rent of a cabin and an acre 3l. generally have a cow and pigs, and plenty of poultry. Religion generally catholic. Many lads go to Newfoundland in may, and come home in october, and bring from 15l. to 24l. pay 3l. passage out, and 1l. 10s. home. Poors' firing, sod, furze, and fern, coals very scarce. Building a cottage 5l. to 7l. to a farm of 50 acres 150l. The people are uncommonly industrious, and a most quiet race — in 15 or 20 years there is no such thing as a robbery. The little farmers live very comfortably and happily, and many of them worth several hundred pounds. They are exceedingly attentive in getting mould out of the ditches and banks, to mix a little dung with it, and spread it on their land. Particulars of a farm: 70 acres; 16 cows; 4 to each partner; 20 horses, each 5; 80 sheep; 60 swine; stock worth 300l. 4 families. And this farm by old accounts has had 90 crops of corn without a fallow or grass, in succession, but they manure with sea-weed and sea-sand every year. They are always on the watch for sea-weed; and when the tide comes in, if it is in the middle of the night, they go out with their cars and get all they can. Some of the fields are so covered with great rocks, that one would think it impossible to plough them, but they manage it by attention. They all speak a broken Saxon language, and not one in an hundred knows any thing of Irish. They are evidently a distinct people; and I could not but remark, their features and cast of countenance varied very much from the common native Irish. The girls and women

men are handsomer, having much better features and complexions. Indeed the women, among the lower classes in general in Ireland, are as ugly as the women of fashion are handsome. Their industry, as I have mentioned in several particulars, is superior to their neighbours; and their better living and habitations are also distinctions not to be forgotten. The poor have all barley bread and pork, herrings, &c. and potatoes. On the coast a considerable fishery of herrings: every creek has four or five boats—none barrelled by the people, but the merchants of Wexford barrel them for the West Indies.

FROM St. Margaret's I took the road to Wexford, the whole way through the barony of Forth. I saw nothing but straw hats for men as well as women, and found afterwards that they were worn through the whole county, they give a comic appearance to every group one meets. Laid at the King's-arms at Wexford, a very clean and good inn. There are 14 or 15 small ships belonging to this port, but a bar at the mouth of the harbour prevents large ones from coming in.

JULY 13th, crossed the harbour in a ferry-boat, in order to take the lower road to Gowry. Passed over much sandy land by the sea side, covered with fern; large tracts of it, and divided into inclosures, as if it had been cultivated. Near the town I observed some heaps of sea-weed rotting for manure. At the 60th mile-stone large sandy tracts, covered with furze and fern. As profitable land for improvement as any I have seen; lets for 6 or 7s. an acre, but there is much other land, at 15s. Their course here is: 1. Oats,
7 or

7 or 8 barrels. 2. Barley, 6 ditto. 3. Oats. 4. Barley. 5. Clover and rye-grass 3 to 6 years. Towards Wells, and from thence to Gowry, land is higher, much of it at 20s. and some higher still.

To Lord Courtown's, who with an attention highly flattering, took every means to have me well informed. His seat at Courtown is a very agreeable place, and in some respects a singular one; for the house is within 600 yards of the sea, and yet it is almost buried in fine woods, which from their growth and foliage, shew no aversion to their neighbour, who is so often pernicious to their brethren. The views of the sea are fine, every where broken by wood, or hilly varied ground. All the environs consist of undulating lands, which give a pleasing variety to the scene: a river enters the garden, and pursuing for some distance a sequestered course, shaded on one side by a rocky bank well wooded, and on the other by lofty trees, with a very agreeable walk under them, pours itself into the sea at a small distance from the house.

LORD COURTOWN is a very good farmer. The first field of turnips I saw in Ireland was here, and he was thinning and weeding them with boys, in order to hoe with the more effect, the land in order, well dunged, and the plants forward and flourishing. He generally has 7 or 8 acres, feeds his cattle with them in a farm-yard, well littered with fern and straw, and sows barley after, getting very fine crops. His sandy lands by the coast he marles richly, and with such effect that the crops are very great. The finest wheat I have seen yet in Ireland was on this sand. Some of his Lordship's fields are wet from a
stratum

stratum of clay; these he throws into lands gently arched, lays down so, and finds them sound enough for winter feeding without poaching, whereas when flat, they are quite kneaded if any cattle go into them. On this clay soil he finds the best manure is sea-sand and shingle from the beach.

JULY 14, Sunday—to church, and was surprised to find a large congregation: this is not often the case in Ireland out of a mass house.—Gallop on the strand; it is a fine firm beautiful sand for miles. The paddies were swimming their horses in the sea to cure the mange, and keep them in health.

THE following particulars of the husbandry of the neighbourhood his Lordship and his brother gave me. At Courtown, and around Gowry, farms in general small: but from 40 or 50 to 2 or 3000 acres, yet 200 acres are a large one, but very many small of 30 to 50. The soil is a skirting of sand against the sea, the rest is gravel and gravelly loam: also a thin stratum of loam on a yellow miserable clay, 12 inches thick, and under it universally a fine blue marle of great depth. Rents rise from 10s. to 30s. average 15s. to 20s. and of the whole county 15s. A good deal of mountain, which in its wild state does not let for more than 3s. The little farmers improve it much by fallow and lime, which they bring from Carlow, 25 miles. When improved, it is worth 16s. an acre, and they pay that for it at the expiration of the lease. Their courses are: 1. Potatoes. 2. Barley, yielding 10 or 12 barrels. 3. Oats, the produce 10 or 12: and then more crops of oats, or barley, till the soil is exhausted, when they leave it to turf itself, which it will not do under 10 or 15 years.

Also,

Also, 1. Summer fallow. 2. Wheat, seven barrels; and then spring-corn crops, till the land is exhausted. No pease or beans. Not a turnip in the country among common farmers, though the finest sands and grounds imaginable for them: nor clover. A little flax is sown, generally after potatoes, and the culture of it increases gradually. Potatoes in general in the common manner; but I heard of one or two farmers, who on dry ground plant them with the plough: always dung or pare and burn; no hiring of land for them, only in their own gardens and little fields; they do not often raise more than enough for half a year, buying for the other half. It is not a sheep country, and no such thing as folding known. Lime is not used, except in the mountains, from Carlow: but marle is very general, a good blue sort, which they spread amply on the sod, and plough it for wheat. The good farmers take three crops upon it, but the little ones will take eight or ten, as long as the land will yield any thing. The deeper they dig the marle, the better it is. They dairy much here, some having 20 cows for butter chiefly. It has been a common idea, that one good cow will make 1 cwt. of butter at 42s. and 1 cwt. of cheese at 25s. and rear her calf. They all keep many pigs, and the more upon account of their dairies. Some calves are fattened for Dublin market, one will suck two cows, and be worth 4l. at three months old. No large flocks of sheep, but most of the farmers have a few; generally wethers bought in and sold out every year. Give them hay in bad weather. Three fleeces to a stone of wool, the present price 16s. Between 30 and 40 years ago 3s. a stone; and 20 years ago 10s.

to 11s. Tillage is performed all with horses, four in a plough, and do half an acre a day. Hire of a car 1s. In hiring and stocking farms, they will take them with scarce any thing but a few cows and horses; yet they pay their rents very well, and few of them fail. Land, at rack rent, sells at 20 years purchase; but within these 10 years 22 or 23. Rents have been rising for 15 years; they have not fallen of late years as in other parts of Ireland, though in some places are beginning. Tythes are valued every year, and the 10th taken as a composition, wheat at 18s. a barrel. Barley 8s. Oats 6s. The 10th lamb 2s. 6d. No tea in the labourers cabins, but in those of little farmers they have it, and it increases much. Leases generally three lives to protestants, and 31 years to catholics. The system of middle men going out---none in new let lands. Barley carried to Wexford for exportation, and wheat to Dublin by means of the bounty on inland carriage. The people increase considerably. Rent of a cabin with an acre 40s. if more added 20s. an acre. All keep cows, and generally a horse and a pig or two, with plenty of poultry reared on potatoes. —They live on oat-cakes when potatoes are not in season; the little farmers that have 40 or 50 acres, eat a good deal of meat; fish is a great article with the poor, particularly herrings and cod. In general much improving, and more industrious than formerly. In about four years, 40 or 50 persons emigrated to America. They are beginning to improve mountain and bog, which, from being worth nothing before, now let at above 20s. an acre. No farms hired in partnership.

THE white boys were violent for about three months in 1775, chiefly from Kilkenny and Carlow, but suppressed immediately by the spirited associations of the gentlemen. They were heard of in the south, under other names before Thurrot or Conflans. Poors' firing, turf seven miles off; 20 kish at 1s. 6d. a good stock; in common it may be reckoned 1l. 1s. Building a cabbin 6l. to 7l. 7s. Of stone and slate 20l. Ditto for a farm of 50 acres, stone and slate 25l. Fowls crammed with potatoes and oatmeal and milk 2s. to 2s. 6d. each. Since these particulars were taken at Courtown his Lordship, by letter, has favoured me with the following, from an intelligent farmer.

COURSE OF CROPS.

1. WHEAT. Number of ploughings, four before sowing. First in november. Second in april, by cros cutting. In june harrow it down well, then put on your manure. Third ploughing in july; harrow it down again. Fourth ditto in august, which will leave it prepared for sowing. Seed to the acre, fourteen stone. Crop, at a medium, eight barrels. 2. Barley. Two ploughings. First in november. Second at the time you sow, having first cros harrowed. Seed to the acre, fifteen stone. Crop, nine barrels. 3. Oats. Most farmers plough but once. Seed, 22 stone. Crop, nine barrels. For Potatoes. Let your ground lie ploughed all winter; to every acre put 500 load of dung. Seed, eight barrels. Crop, 80 ditto. Price, per barrel, 5s. Use of lime very profitable on dry ground; quantity, per acre, from 40 to 50 barrels. Cow's produce. One cow will give ten quarts of milk a day; will produce

produce 100lb. of butter. Profit, 3l. Sheep. Two acres will support one collop, or eight ewes.

	£.	s.	d.
Each sheep a lamb, at 5s. each	2	0	0
Wool from the eight sheep, one stone, at	0	17	0
<hr/>			
Two acres, at 20s. per acre	2	0	0
<hr/>			
Profit on eight sheep, at an average	0	17	0

PROPORTION of the rise of labour is not more than 2d. per day. Particulars of a farm. Arable 20 acres, 10 of barley, 4 of wheat, 6 of oats. Pasture 67 acres. Meadow 13 ditto.—Total 100 acres.—Stock, 24 Cows, 8 horses, 7 two-year old heifers, 4 year old ditto, and four calves.—Rent 100l. Three labourers.

MARLE. Quantity, per acre, on stiff clay ground, from 5 to 600 load, of about 600 weight; on dry gravelly ground, from 800 to 1000 ditto, according to the soil, will last 40 years with management.

JULY 15th, leaving Courtown, took the Arklow road; passed a finely wooded part of Mr. Rams, and a various country with some good corn in it. Flat lands by the coast let very high, and mountain at 6s. or 7s. an acre, some at 8s. or 10s. Passed to Wicklow, prettily situated on the sea, and from Newrybridge walked to see Mr. Tye's, which is a neat farm well wooded, with a river running through the fields.

REACHED in the evening Mount Kennedy, the seat of Gen. Cunningham, who fortunately proved to me an instructor as assiduous as he is able. He is in the midst of a country almost all his own, for he has 10,000 Irish acres here. His domain, and the grounds about it, are very beautiful, not a level can be seen; every spot is tossed about in a variety of hill and dale. In the middle of the lawn is one of the greatest natural curiosities in the kingdom; an immense *Arbutus* tree unfortunately blown down, but yet vegetating, one branch, which parts from the body near the ground, and afterwards divides into many large branches, is 6 feet 2 inches in circumference. The general buried part of the stem as it laid, and it is from several branches throwing out fine young shoots: it is a most venerable remnant. Killarney, the region of the *Arbutus*, boasts of no such tree as this.

JULY 16th, rode in the morning to Drum; a large extent of mountains, and wood, on the General's estate. A vast rocky glen; one side bare rocks to an immense height, hanging in a thousand whimsical, yet frightful, forms, with vast fragments tumbled from them, and lying in romantic confusion; the other a fine mountain side covered with shrubby wood. This wild pass leads to the bottom of an amphitheatre of mountain, which exhibits a very noble scenery. To the right is an immense sweep of mountain completely wooded; taken as a single object, a most magnificent one, but its forms are picturesque in the highest degree; great projections of hill, with glens behind all wooded, have a noble effect. Every feature of the whole view is great, and unites to form a scene of natural magnificence. From hence a riding is cut through the hanging

wood,

wood, which rises to a central spot, where the General has cleared away the rubbish from under the wood, and made a beautiful waving lawn with many oaks and hollies scattered about it; here he has built a cottage, a pretty whimsical oval room, from the windows of which are three views, one of distant rich lands opening to the sea, one upon a great mountain, and a third upon a part of the lawn. It is well placed and forms upon the whole a most agreeable retreat. The following particulars of agriculture I had from General Cunninghame, who took every means of having me well informed.

ABOUT Mount Kennedy the country is inclosed within various mountains and high lands; farms are generally very small, from 20 acres to 100, except in mountainous tracts, where they are larger, some from 300 to 600 acres. The soil is in general a dry sound gravel, hanging to the south east, and protected by mountains from the north west. The rent, on an average, from 30s. to 50s. not mountain, which is usually 8s. or 10s. The skirt of the whole county, from the mountain down to the sea, is from 30s. to 50s. an acre, being a sixth of it. One third of it, uncultivated and uninhabited, lets for not more than 6d. an acre. Another third lets for 20s. The remaining sixth at 9s.—Average of the whole 15s. an acre. The courses of crops are: 1. Potatoes; all the dung of the country used for them. 2. Wheat; sow one barrel, and get on an average eight barrels.—All the furrows shovelled. 3. Oats; sow near two, and get 10 barrels. 4. Oats. 5. Barley; sow $\frac{1}{2}$ and get 10, and then leave it for lay for five years, never sowing any grass seeds. It produces nothing at all for three years, but after

that white clover comes slowly. Barley has been more cultivated upon account of the quantity of ale and beer which are brewed here, being the common beverage through the county, and more famous for it than any other. The barrel, 2-thirds of a hoghead, sells at 40s. Malt malted here 14s. a barrel; the barley 10s. 6d. Another course: 1. Marle, or lime-stone gravel, on the lay, 1,600 loads an acre, and sow barley. 2. Wheat. 3. Oats or barley. 4. Oats or ditto, till left to lay again. Graveling they generally consider as a right to six or eight crops. Their wheat after potatoes they sow so late as christmas. Very few pease, and no beans, nor any rape; and not a turnip, though I saw great tracts perfectly adapted to that crop. They sow very little flax, having no manufacture. Their potatoes universally planted on an old lay; they spread their dung in beds for the trenching way, none under the plough. Plant 8 to ten barrels on an acre, laid at six inches from one another. When the plants are about an inch or two high, they cover them a second time from the trenches; hand weed them. No hiring land of farmers for it, but all on their own account. There are many copses on the sides of mountains of birch, oak, ash, and holly, which are cut generally at 25 years growth for poles for building cabbins; the bark for tan, and the smaller branches for charcoal. They are worth from 12l. to 25l. an acre. Many of them on very steep sides of mountains, and to a great height; but no great oak woods, since the Shillaly ones were cut down about 12 years ago. There are considerable tracts of mountain land improved; if dry heath land, they plough, cross plough, burn, and then sow rye, getting 8 barrels, after which they have oats, and crop as long as it will produce. Unimproved mountain, consisting

consisting of rock, and yielding furze, (*ulex europæus*) fern, (*pteris aquilina*) &c. but dry, lets at 8s. an acre, at which rent they have it for 31 years. The improvement is reckoned very profitable. No folding sheep: there is not such a thing as a hurdle known. They pare and burn the mountain as the only way to improve, though contrary to an absurd act of parliament against it. Lime they use in very small quantities, and no wonder, for it is the Sutton stone they bring from the hill of Howth to Wicklow, where it is burnt, and the common farmers bring it from thence at the expence of 2s. 6d. the statute barrel of 32 gallons. They lay from 20 to 60 on an acre, chiefly on mountain ground. Grey marle, with lime-stone gravel in strata, abound all over the country, with other strata of sand, all which have an effervescence with acids; in digging they mix together, and prove of infinite benefit to the fields. Very few dairies, so that they make scarce any butter. Their cows are subservient to their lamb suckling, and leave them free only in summer, when they fat calves for Dublin market. Four or five quarts of milk at a meal is the common quantity. In the winter they have hay, but only in hard weather. No grazing of oxen. As to sheep their system is particular; it is all suckling lambs for Dublin market.

GENERAL Cunninghame carried me to a farmer who is reckoned the most able in that business of any in the country, and the following is the account he gave me of his management. He breeds his own lambs from a stock partly bought in every year. The rams he puts to the ewes the middle of may, in order to have them lamb at michaelmas, or

a little after. They are left in the field for a week, and then taken into the house. The ewes are brought to suckle them twice a day in general; but three or four times, while young; they have cows milk given them by women from their mouths, squirted down the lambs throats, to the quantity of a *noggin* a day at first, and rises to $1\frac{1}{2}$ and 2. A *noggin* is one-eighth of a quart. They keep them till three weeks before christmas, and then begin to sell them. Their ewes are kept on grafs only, unless in bad weather, when they have hay. He sells 75 lambs annually, from a stock of 80 rams and ewes, at 33s. on an average, some up to 40s. for these lambs he has 8 cows, 5 of them in full milk, and if he has not cows enough, buys in for the purpose. The ewes are bought in at 9s. each in july, and some old ones are sold every year at 6s. 14 acres of grafs will keep 80 sheep until the stubbles are ready for them.

In this system much depends on having them take the ram in proper time for the Dublin market. In order to accomplish this seemingly difficult business, they treat the ladies with a cup of generous Wicklow ale, and drive them about the field, in order to create the proper ferment between their blood and the ale, and then at the critical moment let in the gentleman. Some managers more attentive than common, treat them with claret instead of ale; perhaps the swarms of children in the cabbins are owing to the prolific quality of this excellent ale of Wicklow.

THE wool of the country is all wrought up by the inhabitants, spun, combed, and wove into flannel and frizes, and to such an extent, that the mountain

tain farmers pay half their rents by this manufacture. They also buy much, not having enough of their own: it is done by the smallest farmers going through the whole manufacture employing cottars in it. By spinning, a woman can earn 3d. a day. Wool now 14s. to 17s. the stone of 16lb. 20 years ago 11s. no rot among the sheep. On the mountains many goats are kept for the milk, which is drank very much by people from Dublin, who take lodgings for drinking goats whey. Kids flesh reckoned very fine.

THEY plough with both horses and bullocks: two horses and two bullocks, and one bullock and three horses, and do from one-half to three-fourths of an acre a day. Stir 5 inches deep. Very few or no oats given to horses. They work their draught oxen in winter on straw. Hire of a car, a horse, and a driver, 1s. 6d. a day. With 4 cows, 2 horses, a yearling, and 20 sheep, General Cunningham has had tenants professedly take 50 acres.

LAND sells at rack rent for 18 to 21 years purchase; 5 or 6 years ago it was at 22. Rents are fallen in the same time 4s. in the pound. Tythes are paid by composition; the crops are viewed, and they agree for one year. An acre of wheat 10s. Barley 4s. Oats 4. No tea in the cabbins on the mountains, but in the towns they have it. Leases are three lives, or 31 years, a vast proportion re-let 3 or 4 deep. The people increase much. Rent of a cabin in a village, with a very small garden, 2l. 2s. to 3l. if not in a village it is less. On a mountain 50s. to 3l. for a cabin and 5 acres, but generally have a common pasture for their cows, &c. Farms

much taken in the mountains by partnership; 3 or 4 will take 100 acres, and divide among themselves as in Kilkenny. Lower people all roman catholics. No emigrations, nor white boys. They have plenty of potatoes; all keep a cow, some more; all a pig and poultry of every kind. Their fuel is turf from the mountains; they are universal pilferers of every thing they can lay their hands on: great lyars, but full of quickness and sagacity, and grateful to excess.

KISH of turf 10d. delivered. Oak *ribberies* (spars) for cabbins 4s. 6d. a dozen. Building a cabin 25 feet long, 14 feet wide, with a door and 2 windows, 5l. 10s. Ditto stone and slate 20l. Ditto farm house and offices for 50 acres, of stone and slate 200l.

EXPENCES and produce of General Cunninghame's farm,

			£.	s.	d.
Rent	--	--	375	0	0
Labour	--	--	150	0	0
Wear and tear	---	---	30	0	0
			<hr/>		
			555	0	0
			<hr/>		

		£.	s.	d.
48 acres mown, at 10 loads an acre, at 10s.	}	240	0	0
5 acres of wheat 10 barrels, at 11. 1s.		52	10	0
10 — barley 14 ditto, at 10s. 6d.		73	10	0
17 — oats 13 ditto, at 10s		110	10	0
<hr/>				
Carried over		476	10	0
		2 — pease		

MOUNT KENNEDY. 105

	£.	s.	d.
Brought over	476	10	0
2 — pease 9 ditto, at 10s.	9	0	0
10 — sundries, at 5l.	50	0	0
70 sheep at 15s.	52	10	0
Swine	5	0	0
10 young cattle 40s.	20	0	0
16 horses, 36 weeks, at 2s. 6d.	72	0	0
5 oxen, ditto 2s. 6d.	22	10	0
	707	10	0

In two acres of land summer-fallowed for wheat, the General was persuaded not to sow it, as the red-worm would infallibly destroy the crop, he, therefore, kept it for barley; but manured it with lime, 90 barrels an acre at 2i $\frac{1}{2}$ d. each, from the hill of Howth in august; the barley was eaten notwithstanding the lime; it was a very poor crop, and in some places none at all. Sowed the stubble with pease, which I saw, and were very fine. He tried a very extraordinary experiment upon breaking up an old mossy grass lay in an orchard, and laying it down again without having any corn: it was manured with plenty of sand, then ploughed in august; directly cross-ploughed; harrowed thoroughly, and threw about 20 barrels of lime an acre; burnt the roots, weeds, and tufts of grass, spread the ashes, harrowed, and upon that, about the beginning of september, hay seeds sowed. This was done to escape the trouble of a course of tillage among trees. The success great as possible; I saw the crop of hay mown, and it is not less than 16 loads an acre. This is a system which, in many cases, would be of the greatest

greatest use in reviving old hide-bound pastures without the trouble of a course of tillage. It should, however, be observed, that the climate of Ireland is peculiarly favourable to laying land to grass at that season, for it grows luxuriantly quite till Christmas. Another instance of this natural tendency of the soil to grass, is a trial the General accidentally made. He had a small field under turnips, which he hoed well, and were a fine-crop; upon being drawn to feed the plough bullocks with, he found much grass upon the land, so much, that it induced him to let it stand, and the rather as it was laid very flat and smooth with the turnips, he rolled in some grass seeds, and it turned out a very fine meadow. He was the first who sowed red clover here, and is not yet followed by the farmers. He encourages his tenants to lime, and lends them money for it. Much land is laid to grass at Mount Kennedy, and all of it done in a perfect manner, the surface laid completely smooth, without the least sign of a furrow, and the grasses luxuriant; all manured richly with gravel and marle. I saw two large compost dunghills turning over and mixing, a sight not common in Ireland. It pleased me more than the sight of a palace would have done. The General's crops I found all exceedingly fine, one field of oats the best I had seen in Ireland.

JULY 17th.—Took my leave of General Cunningham, and went through the Glen of the Downs in my way to Powerscourt. The Glen is a pass between two vast ridges of mountains covered with wood, which have a very noble effect, the vale is no wider than to admit the road, a small gurgling river almost by its side, and narrow slips of rocky and shrubby

GLEN OF THE DOWNS. 107

shrubby ground which part them : in the front all escape seems denied by an immense conical mountain which rises out of the Glen, and seems to fill it up. The scenery is of a most magnificent character. On the top of the ridge to the right Mr. La Touche has a banquetting room. Passing from this sublime scene, the road leads through chearful grounds all under corn, rising and falling to the eye, and then to a vale of charming verdure broken into inclosures, and bounded by two rocky mountains, distant darker ones filling up the scene in front : this whole ride is interesting, for within a mile and an half of Tinnyhinch (the inn to which I was directed) you come to a delicious view on the right, a small vale opening to the sea, bounded by mountains, whose dark shade forms a perfect contrast to the extreme beauty and lively verdure of the lower scene, consisting of gently swelling lawns rising from each other, with groups of trees between, and the whole so prettily scattered with white farms, as to add every idea of chearfulness. Kept on towards Powerscourt, which presently came in view from the edge of a declivity. You look full upon the house, which appears to be in the most beautiful situation in the world, on the side of a mountain, half way between its bare top, and an irriguous vale at its foot. In front, and spreading among woods on either side, is a lawn whose surface is beatifully varied in gentle declivities, hanging to a winding river. Lowering the hill the scenery is yet more agreeable, the near inclosures are margined with trees, through whose open branches are seen whole fields of the most lively verdure. The trees gather into groups, and the lawn swells into gentle inequalities,

lities, while the river winding beneath renders the whole truly pleasing.

BREAKFASTED at the inn at Tinnyhinch, and then drove to the park to see the water-fall. The park itself is fine; you enter it between two vast masses of mountain, covered with wood, forming a vale scattered with trees, through which flows a river on a broken rocky channel: you follow this vale till it is lost in a most uncommon manner, the ridges of mountain closing, form one great amphitheatre of wood, from the top of which, at the height of many hundred feet, bursts the water from a rock, and tumbling down the side of a very large one, forms a scene singularly beautiful. At the bottom is a spot of velvet turf, from which rises a clump of oaks, and through their stems, branches, and leaves, the falling water is seen as a back ground with an effect more picturesque than can be well imagined; these few trees, and this little lawn, give the finishing to the scene. The water falls behind some large fragments of rock, and turns to the left, down a stony channel, under the shade of a wood. Plate I.

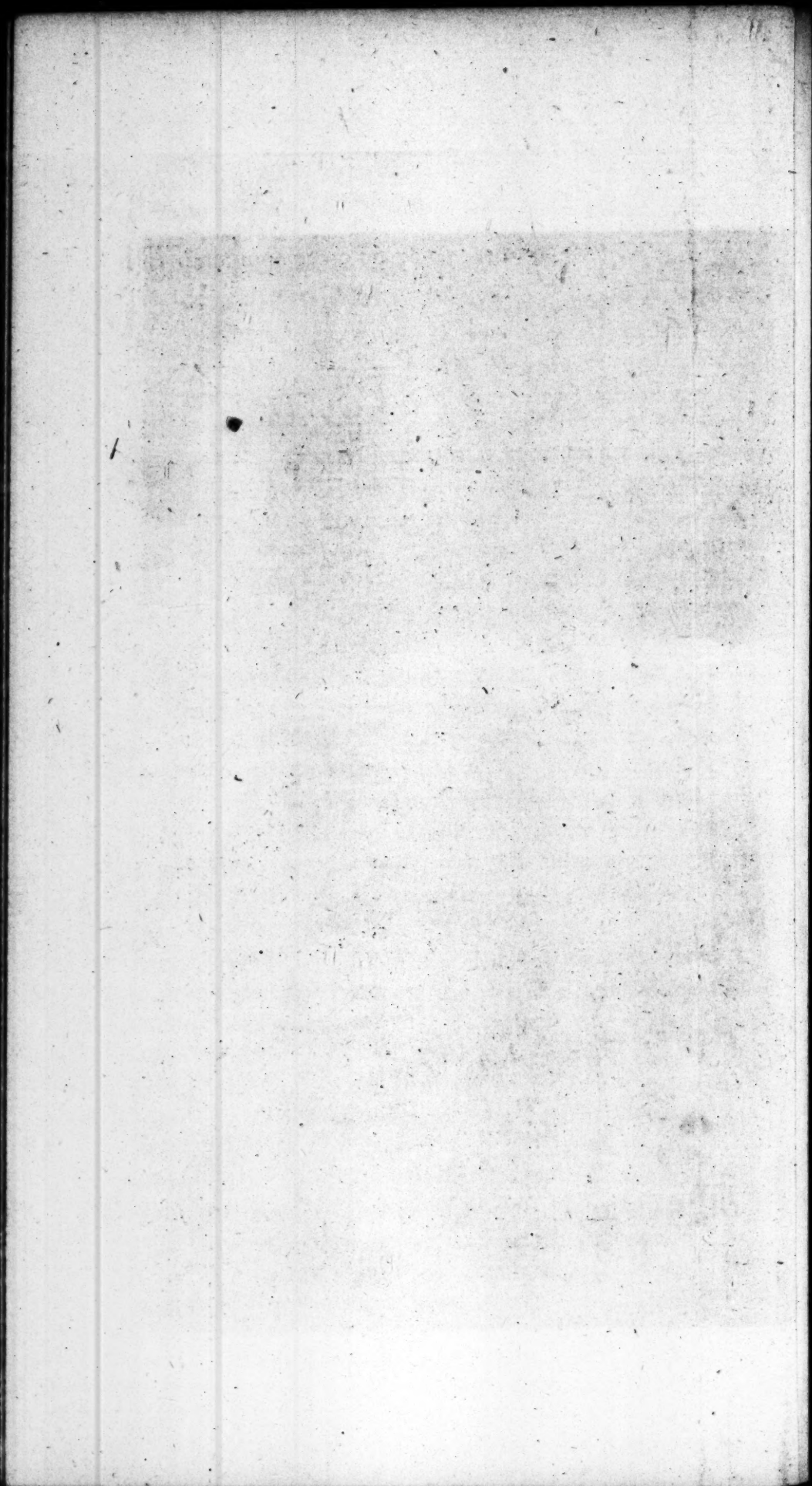
RETURNING to Tinnyhinch, I went to Inniskerry, and gained by this detour in my return to the Dargle, a beautiful view which I should otherwise have lost; the road leads on the edge of a declivity, from whence there is a most pleasing prospect of the river's course through the vale, and the wood of Powerscourt, which here appears in large masses of dark shade, the whole bounded by mountains. Turn to the left into the private road that leads to the Dargle, and presently gives a specimen of what is to be expected by
a romantic





IT is the scene.

Waterfall at Powerscourt.



a romantic glen of wood; where the high lands almost lock into each other, and leave scarce a passage for the river, which rages, as if with difficulty forcing its way. It is topped by a high mountain, and in front you catch a beautiful plat of inclosures bounded by the sea. Enter the Dargle, which is the name of the Glen, near a mile long. Come presently to one of the finest ranges of wood I have any where seen: it is a narrow vale formed by the sides of two opposite mountains; the whole thickly spread with oak at the bottom (the depth is immense) it is narrowed to the mere channel of the river, which tumbles from rock to rock. The extent of wood that hangs to the eye in every direction is great, the depth of the precipice immense, which with the roar of the water forms a scene truly interesting. In less than a quarter of a mile, the road passing through the wood leads to another point of view to the right: it is the crown of a vast projecting rock, from which you look down a precipice absolutely perpendicular, and many hundred feet deep upon the torrent, which finds its noisy way over large fragments of rock. The point of view is a great projection of the mountain on this side, answered by a concave of the opposite, so that you command the Glen both to the right and left; it exhibits immense tracts of forest, that have a most magnificent appearance. Beyond the wood, to the right, are some inclosures hanging on the side of a hill, crowned by a mountain. I knew not how to leave so interesting a spot; the impressions raised by it are strong. The solemnity of such an extent of wood unbroken by any intervening objects, and the whole hanging over declivities is alone great; but to this the addition of a constant roar of falling water, either quite hid, or so far below as to be seen but obscurely,

scurely, united to make those impressions stronger. No contradictory emotions are raised—no ill-judged temples appear to *enliven* a scene that is gloomy rather than gay. Falling or moving water is a lively object; this being obscure, the noise operates differently. Following the road a little further, there is another bold rocky projection, from which also a double view to the right and left. In front so immense a sweep of hanging wood, that a nobler scene can hardly be imagined: the river is at the bottom of a precipice, so steep, and a depth so great, as to be quite fearful to look down. This horrid precipice, the pointed bleak mountains in view, with the roar of the water, all conspire to raise one great emotion of the sublime. You advance scarcely 20 yards before a pretty scene opens to the left, a distant landscape of inclosures, with a river winding between the hills to the sea. Passing to the right, fresh scenes of wood appear; half way to the bottom a different one is seen; you are almost inclosed in wood, and look to the right through some low oaks on the opposite bank of wood, with an edging of trees through which the sky is seen, which added to an uncommon elegance in the outline of the hill, has a most pleasing effect. Winding down to a thatched bench on a rocky point, an uncommon scene opens. Immediately beneath is a vast chasm in the rock, which seems torn asunder, to let the torrent through that comes tumbling over a rocky bed far sunk in a channel embosomed in wood. Above is a range of woods, which half overshadow it, and rising to a vast height, exclude every object. To the left the water rolls away over broken rocks: a scene truly romantic. Followed the path; it led me to the water's edge, at the bottom of the Glen, where is a new scene, in which not a single circumstance

weakens

weakens the principal character. In a hollow formed of rock and wood (every object excluded but those and water) the torrent breaks forth from fragments of rock, and tumbles through the chasm, rocks bulging over it, as if ready to fall into the channel, and stop the impetuous water. The shade is so thick as to exclude the heavens; all is retired and gloomy; a brown horror breathing over the whole. It is a spot for melancholy to muse in.

Return to the carriage, and quit the Dargle, which upon the whole is a singular place, different from all I have seen in England, and I think, preferable to most. Cross a murmuring stream clear as chrystal, and rising a hill, look back on a pleasing landscape of inclosures, which waving over hills, end in mountains of a very noble character. Reach Dublin.

JULY 18th, once more to Lord Harcourt's at St. Woolstan's, where I was so fortunate as to meet Colonel Burton: he gave me a fresh packet of recommendations into the North of Ireland, and taking my leave of his excellency, passed Manooth to Kilrue. From Celbridge to Manooth is a line of very fine corn. Passed Dunboyne, from thence to Kilrue; the soil is clay, flat and strong, and I observed much hollow draining, with very fine crops of wheat and oats. The land about Mr. Jones is a very fine rich strong loam, call here clay. Mr. Lowther, to whom I had a letter, not being at home, I was forced to take refuge in a cabin, called an inn, at Ratoath. Preserve me, fate! from such another. In their strong lands about Kilrue their courses are:—1. Fallow.
2. Wheat,

2. Wheat, yielding 8 to 15 barrels an acre. 3. Oats, 9 to 20 barrels.

1. Potatoes 80 barrels.

1. Potatoes.

2. Beans 7 to 15.

2. Barley 9 to 14.

3. Oats.

3. Oats.

LIMESTONE gravel they use in great quantities; lay it on a fallow, and it lasts 7 years, the expence from 4l. to 8l. Lime they use, but find that it will not last like gravel. Hollow, called *French drains*, are very general, even among the common farmers: some done with stones, but much with sods, laid *an edge* in the ground; they dig them $2\frac{1}{2}$ or 3 feet deep; at $2\frac{1}{2}$ feet, the expence is 5d. a perch. At 3 feet it is 8d. Clover they sow pretty much, let it lie two years, and then break it up for oats on one ploughing. They sow it on both winter and spring corn. The poor give 5l. 5s. an acre for lay to plant potatoes on, and the same for stubble-ground dunged. A cabbin and half an acre of land, 30s. rent, and 30s. more for a cow's food. Farms rise to 300 acres, and rents from 18 to 25s. an acre.

JULY 19th, left Ratoath, passing Robert's-town, found much of the land a strong loam without stones, with all the appearance of being a very fine soil. Got to Baron Hamilton's at Hampton, near Balbriggan, by breakfast. His house is new built, and stands agreeably by a fine shore, with a full view of the mountains of Mourn, at 16 leagues distance, and the isles of Skerry near him, much improving the view. He favoured me with the following account.

ABOUT

ABOUT Hampton, the soil clay or strong loam, and many stones in it; lets from 20 to 30s. Farms rise from 40 acres to 100 and 150. No taking in partnership. Courses:

1. Fallow. 2. Wheat, 7 barrels. 3. Barley, 10 to 12. 4. Oats, 10.

1. Fallow. 2. Wheat. 3. Barley. 4. White pease.

1. Fallow. 2. Wheat. 3. Barley. 4. Oats. 5. Clover for 2 years. 6. Wheat or fallow.

THE manures lime, sea sand, marle and lime-stone gravel got three feet deep. Lime 6d. to 8d. at the kiln; they lay from 100 to 150 barrels, which last 8 or 9 years; on the dry soils does best. On clay well drained, they spread of lime-stone gravel, that has a strong fermentation, 300 to 400 loads, generally out of drains, ditches, &c. lasts long; it is best on strong land. Sea sand on poor clay excellent; lay 300 barrels an acre, which is a good dressing; lasts many years, and changes it from scutch (*triticum repens*) to white clover (*trifolium repens*); it has an effervescence with acids. The white marle under black bottoms; 300 loads an acre. On new lays the Baron has found a very fine effect from it. Flax chiefly after potatoes, and then barley. Sow enough for their own use, not enough for manufactures for sale. For potatoes they pay 4l. an acre for dunged land, or lay on dung and have it for nothing. Much hollow draining, 4 feet deep, and 5 inches broad at bottom; fill with stones, and the improvement found very great; the common farmers do much. Tillage

performed mostly with horses. In hiring farms they will take 100 acres with 200l. Tythes are generally compounded. The Baron has 800l. a year in tythes, and they pay upon an average 2s. an acre. If distinguished, wheat is 8s. or 9s. Barley 8s. Oats 5s. Pease 4s. Meadow 4s. 6d. Many lands are hired to be relet. Population increases very fast, and the country in every respect improves amazingly. A cottage and half an acre 40s. to 3l. for a cow 30s. they generally have 2 cows. A bellyful of potatoes and oatmeal for *stirabout*; keep 2 or 3 pigs, and a great deal of poultry. They are universally much better off in every respect than 20 years ago: more industrious, owing perhaps very much to the high rents; inasmuch, that they have been the parent of all improvements. All the manures have been found out within 20 years. Lime has not been used more than 10 years. When Baron Hamilton built the pier at Balbriggan, in the year 1763, there was only one sloop of culm for burning lime in a season, but now from 60 to 100.

CATTLE of all sorts a very inferior object. This place is in Fingal, which is a territory from near Dublin, extending along the coast, inhabited by a people they call Fingalians; an English colony planted here soon after their landing, speaking nearly the same language as the Barony of Forth, but more intermixed with Irish in language, &c. from vicinity to the capital.

A HORSE and car and driver is. two cars to a driver. The rise of labour great in 20 years, from 4d. to 6d. An extraordinary circumstance is, that

that Ireland has been very prosperous on comparison with former times, and yet interest of money now 6 per cent. and 20 years ago $4\frac{1}{2}$ and 5. Land sells at under 20 years purchase, fallen from 24 in 4 or 5 years, owing partly to the rents being run up too high.

BARON HAMILTON has been a considerable improver ; he took in near Hampton 150 acres, mountain land, covered with scutch grass, (*triticum repens*) furz (*ulex europæus*) and a little heath (*erica vulgaris*); stubbed it up, ploughed it 4 times, limed 140 to 150 barrels each acre. Sowed rye, sold on the land for 7l. 10s. an acre. For two successive years let it at 4l. 10s. an acre for two crops of oats, which yielded from 16 to 20 barrels an acre ; then two years more at 3l. 15s. and 3l. 10s. the crops 14 barrels. Fallowed it to destroy scutch grass for maillin, and then a crop of spring corn with grass seed. This is the course in which the rough ground has been generally improved. This soil clay without much stone. In its rough state worth only 5s. an acre to remain so, but the Baron paid 16s. 6d. The first year's expence was, crop included, 10l. an acre, now worth 20s. to 28s. an acre.

THE Baron carried me to Balbriggen, a little sea port of his, which owes its being to his care and attention. It subsists by its fishing boats, which he builds ; has 23 of them, each carrying 7 men, who are not paid wages, but divide the produce of their fishery. The vessel takes one share, and the hands one each, which amounts on an average to 16s. a week. A boat costs from 130l. to 200l. fitted out ready for the fishery : they make their own nets.

The port owes its existence to a very fine pier which Baron Hamilton built, within which ships of 200 tons can lay their broad sides, and unload in the quay. Such vessels bring coals and culm from Wales, &c. The base of the pier is 18 feet thick, and on the outside is a considerable rampart of great fragments of rock, sunk to defend it against the waves. In moving these huge stones, some of which weigh 8 or 10 ton, he made use of a contrivance which deserves to be generally known. They are spread along the shore, between high and low water mark, but to get them to the place where wanted was a very difficult business. He lashed puncheons to them at low water, which floated them when the tide came in, and conveyed them over the spot where wanted; but in disengaging the casks from the stone to sink the latter, he often had them broken, and found many difficulties. To remedy this, he had a contrivance very simple and ingenious, which answered the purpose completely. The puncheons were hooped strongly with iron near each end, and between these irons was a chain, from the center of which went an iron tongue. The stones, at low water, were lashed round with a chain with open irons that corresponded with those tongues in the cask chains, the one went into the other, and when closed had a female screw through all three; through the two jaws of the one, and the tongue of the other, a male screw at the end of a bar was then screwed in when the stone was ready to move. One of 8 tons required 10 puncheons: upon being floated over the spot where wanted these bars were unscrewed, and the stone and casks disengaged at once without trouble, the one sinking, and the casks floating away with the chain that was lashed round the stone.

LEFT

LEFT Balbriggen and went to Bally-garth, the seat of ——— Pepper, Esq; a place very agreeably wooded on a rising ground above a river. Mr. Pepper keeps a considerable domain in his hands, and has practiced several parts of husbandry with much attention; he has laid down large tracts to grass, which he has made so good that he could let it readily for 50s. to 3l. an acre. His course of crops has been sometimes, 1. Turnips. 2. Barley. 3. Clover. 4. Wheat; and has cultivated turnips in considerable quantities. In several particulars, which I saw myself, Mr. Pepper appears an excellent farmer. His quick fences were in perfect order; his wet lands hollow drained, and the mouths of the drains well faced with stone. The old ditch earth on the borders of his fields was carting away to form composts; he did it by contract, the men digging and leading it from 20 to 30 perches, driving and finding horses and cars at 5d. a score loads, each a barrel. This is much *against* the Irish cars, for four horses carry but 16 bushels of earth, whereas three in an English cart would carry double that. Mr. Pepper is much a friend to them for some things, but in others thinks that two-horse carts are preferable; with two horses in a well-made cart, he sends 10 barrels to Dublin, whereas two horses in two cars carry but five or six barrels, which is a great inferiority; but he likes the little one-horse cart better still, which brings him three barrels of coals, lime, &c. A circumstance in the fattening of cattle, in which he is peculiar, is, not letting his bulls go among his fattening cows; he never does this, and finds that they fat as well without as with it. In breeding sheep he is attentive, finding it a profitable branch of farming. He keeps his lambs till they are two-year-old wethers, and sells

them in spring at 35s. each on an average; but could not do it without the assistance of turnips. His ewes clip 8lb. of wool, and his lambs 7lb. 20 acres of grass will carry 100 through the year, except the turnip season. Sea sand Mr. Pepper spreads on his clay meadows, and finds the benefit of it very great.

IN conversation on the common people, Mr. Pepper assured me he never found them more dishonest than in other countries. They would steal slightly till they found him resolute in punishing all he discovered; even his turnips have suffered very little depredation.

JULY 20th, to Drogheda, a well built town, active in trade, the Boyne bringing ships to it. It was market-day, and I found the quantity of corn, &c. and the number of people assembled very great; few country markets in England more thronged. The Rev. Mr. Nesbit, to whom recommended, absent, which was a great loss to me, as I had several enquiries which remained unsatisfied.

To the field of battle on the Boyne.—The view of the scene from a rising ground which looks down upon it is exceedingly beautiful, being one of the completest landscapes I have seen. It is a vale, losing itself in front between bold declivities, above which are some thick woods, and distant country. Through the vale the river winds and forms an island, the point of which is tufted with trees in the prettiest manner imaginable; on the other side a rich scenery of wood, among which is Doctor Norris's house. To the right on a rising ground on the banks of the river is the obelisk, backed by a very bold declivity; pursued the

the road till near it, quitted my chaise, and walked to the foot of it. It is founded on a rock which rises boldly from the river. It is a noble pillar, and admirably placed. I seated myself on the opposite rock, and indulged the emotions, which, with a melancholy not unpleasing, filled my bosom, while I reflected on the consequences that had sprung from the victory here obtained. Liberty was there triumphant. May the virtues of our posterity secure that prize which the bravery of their ancestors won ! Peace to the memory of the Prince to whom, whatever might be his failings, we owed that day memorable in the annals of Europe !

RETURNED part of the way, and took the road to Cullen, where the Lord Chief Baron Forster received me in the most obliging manner, and gave me a variety of information uncommonly valuable. He has made the greatest improvements I have any where met with. The whole country 22 years ago was a waste sheep walk, covered chiefly with heath, with some dwarf furz and fern. The cabbins and people as miserable as can be conceived ; not a protestant in the country, nor a road passable for a carriage. In a word, perfectly resembling other mountainous tracts, and the whole yielding a rent of not more than from 3s. to 4s. an acre. Mr. Forster could not bear so barren a property, and determined to attempt the improvement of an estate of 5000 acres till then deemed irreclaimable. He encouraged the tenants by every species of persuasion and expence, but they had so ill an opinion of the land that he was forced to begin with 2 or 3000 acres in his own hands ; he did not, however, turn out the people, but kept them in to see the effect of his operations.

THESE were of a magnitude I have never heard before: he had for several years 27 lime-kilns burning stone, which was brought 4 miles with culm from Milford Haven. He had 450 cars employed by these kilns, and paid 700l. a year for culm: the stone was quarried by from 60 to 80 men regularly at that work; this was doing the business with incomparable spirit—yet had he no peculiar advantages, but many circumstances against him, among which his constant attendance on the courts, which enabled him to see Cullen but by starts, was not the least. The works were necessarily left to others at a time that he could have wished constantly to have attended them,

WHILE this vast business of liming was going forwards, roads were also making, and the whole tract inclosed in fields of about 10 acres each, with ditches 7 feet wide, and 6 deep, at 1s. a perch, the banks planted with quick and forest trees. Of these fences 70,000 perches were done.

IN order to create a new race of tenants, he fixed upon the most active and industrious labourers, bought them cows, &c. and advanced money to begin with little farms, leaving them to pay it as they could. These men he nursed up in proportion to their industry, and some of them are now good farmers, with 4 or 500l. each in their pockets. He dictated to them what they should do with their lands, promising to pay the loss, if any should happen, while all the advantage would be their own. They obeyed him implicitly, and he never had a demand for a shilling loss.

He

HE fixed a colony of French and English protestant on the land, which have flourished greatly. In Cullen are 50 families of tradesmen, among whom sobriety and industry are perfectly established.

MANY of these lands being very wet, draining was a considerable operation: this he did very effectually, burying in the drains several millions of loads of stones.

THE mode in which the chief baron carried on the improvement, was by fallowing. He stubbed the furze, &c. and ploughed it, upon which he spread from 140 to 170 barrels of lime per acre, proportioning the quantity to the mould or clay which the plough turned up. For experiment he tried as far as 300 barrels, and always found that the greater the quantity, the greater the improvement. The lime cost him 9d. a barrel on the land: his usual quantity 160, at the expence of 6l. an acre, and the total of that expence alone 30,000l. After the liming, fallowed the land for rye, and after the rye took two crops of oats. Throughout the improvement, the lime has been so exceedingly beneficial that he attributes his success principally to the use of it. Without it, all other circumstances equal, he has got 3 or 4 barrels an acre of oats, but with it 20 and 22 of barley. Has compared lime and white marle on an improved mountain-foil for flax, that on the lime produced 1000lb. well scutched, the other 300lb.

HIS great object was to shew the tenantry as soon as he could, what these improvements would do in corn, in order to set them to work themselves. He
sold

sold them the corn crops on the ground at 40s. an acre: the three crops paid him therefore the expence of the liming, at the same time they were profitable bargains to the tenants. With the third corn-crop the land was laid down to grass. Upon this operation, after the manuring, ditching and draining, the old tenants very readily hired them. Some seeing the benefit of the works, executed them upon their own lands; but their landlord advanced all the money, and trusted to their success and honesty for the payment. This change of their sentiments induced him to build new farm-houses, of which he has erected above 30, all of lime and stone, at the expence of above 40l. a house; the farms are in general about 80 acres each.

AFTER six or seven years, the chief baron limed much of it a second time on the sod, and the benefit of it very great. It is all let now on an average at 20s. an acre. Upon the whole, his Lordship is clearly of opinion that the improvement has been exceedingly profitable to him, besides the pleasure that has attended so uncommon a creation. He would recommend a similar undertaking to others who possess wastes, and if he had such another estate he would undertake it himself.

He also allotted a considerable tract of many acres for plantations, which are well placed and flourishing. Ridings are cut in them, and they form a very agreeable scenery. Mr. Forster, his son, takes much pleasure in adding to them, and has introduced 1700 sorts of European and American plants. The country is now a sheet of corn: a greater improvement I have not heard of, or one which did more genuine honour to the person that undertook it.

THIS

THIS GREAT IMPROVER, a title more deserving estimation than that of a great General or a great Minister, lives now to overlook a country flourishing only from his exertions. He has made a barren wilderness smile with cultivation, planted it with people, and made those people happy. Such are the men to whom monarchs should decree their honours, and nations erect their statues.

SOME other circumstances I learnt from his Lordship were—that more than half the county of Louth, which is one of the best in Ireland for tillage, is every year under corn: 25 years ago, it was all at 10s. an acre, now 21s. *Corn-acre* rents, 40 years ago, were 25s.—25 years ago 30s.—now 3l. 12s. Conjectures one family to every 10 acres in the county, exclusive of towns: founds this by observing generally four families to every farm of 40 acres.

THE general course of crops in Louth is: 1. Fallow. 2. Wheat, the produce 6 barrels. 3. Oats, ditto 15 barrels. 4. Barley, ditto 15 barrels. 5. Oats. 6. Grass seeds sown, or left waste to turf itself.

IN his Lordship's circuits through the north of Ireland he was, upon all occasions, attentive to procure information relative to the linen manufacture. It has been his general observation, that where linen spreads tillage is very bad. Thirty years ago the export of linen and yarn about 500,000l. a year; now 1,200,000l. to 1,500,000l. The chief baron has taken some pains to compare the linen and woollen manufacture for Ireland, and found, from the closest inspection, that the people employed in the linen earned one-third more than those in the woollen. One stone of wool is the produce of an
acre

acre of grass, which feeds two and an half, or three sheep. Raw, it is equal to one-third of the manufactured value, and at 10s. is only 11, 10s. gross produce. An acre of flax at 8 cwt. and he has had 12 cwt. wrought into the worst linens, will amount to ten times the value of the acre under wool. It is found in manufacture, that it never flourishes when oatmeal is cheap---the greatest exports of linen are when it is dearest.

RESPECTING the thieving disposition of the common people, which I had heard so much of, the chief baron was entirely of a different opinion---from his own experience he judged them to be remarkably honest. In working his improvements, he has lived in his house without shutters, bolts, or bars, and with it half full of *spalpeens*, yet never lost the least trifle---nor has he met with any depredations among his fences or plantations.

RAISING rents he considers as one of the greatest causes of the improvement of Ireland; he has found that upon his own estates it has universally quickened their industry, set them to searching for manures, and made them in every respect better farmers. But this holds only to a certain point; if carried too far, it deadens, instead of animating, industry. He has always preferred his old tenants, and never let a farm by advertisement to receive proposals. That the system of letting farms to be re-let to lower tenants, was going out very much: it is principally upon the estates of absentees, whose agents think only of the most rent from the most solvent tenant.

In

IN conversation upon the popery laws, I expressed my surprise at their severity: he said they were severe in the letter, but were never executed. It is rarely or never (he knew no instance) that a protestant discoverer gets a lease by proving the lands let under two-thirds of their real value to a catholic. There are severe penalties on carrying arms or reading mass; but the first is never executed for poaching (which I had heard), and as to the other, mass-houses are to be seen every where: there is one in his own town. His Lordship did justice to the merits of the roman catholics, by observing that they were in general a very sober, honest, and industrious people. This account of the laws against them brought to my mind an admirable expression of Mr. Burke's, in the English house of commons, CONNIVANCE IS THE RELAXATION OF SLAVERY, NOT THE DEFINITION OF LIBERTY.

THE kingdom more improved in the last 20 years than in a century before. The great spirit began in 1749 and 1750.

HE was assured that the emigrations, which made so much noise in the north of Ireland, were principally idle people, who, far from being missed, left the country the better by their absence. They were generally dissenters, very few churchmen or catholics.

JULY 21st, took my leave of this prince of improvers, who gave me a letter to Mr. Forster of Rossy Park; bent my course thither, but he being from home, went on to Atherdee; and one of the finest sheets of corn I ever beheld is from the hill which looks down on that town. It is a glorious prospect

prospect, all waving hills of wheat as far as the eye can see, with the town of Atherdee in a wood in the vale.

To Dundalk, the view down on this town also very beautiful, swelling hills of a fine verdure, with many rich inclosures backed by a bold outline of mountain that is remarkable. Laid at the Clanbrassil Arms, and found it a very good inn. The place, like most of the Irish towns I have been in, full of new buildings, with every mark of increasing wealth and prosperity. A cambrick manufacture was established here by parliament, but failed; it was, however, the origin of that more to the north.

JULY 22d, left Dundalk—Took the road through Ravensdale to Mr. Fortescue, to whom I had a letter, but unfortunately he was in the south of Ireland. Here I saw many good stone and slate houses, and some bleach greens; and I was much pleased to see the inclosures creeping high up the sides of the mountains stoney as they are. Mr. Fortescue's situation is very romantic on the side of a mountain, with fine woods hanging on every side, with the lawn beautifully scattered with trees spreading into them, and a pretty river winding through the vale, beautiful in itself, but trebly so on information, that before he fixed there, it was all a wide waste. Rents in Ravensdale 10s. mountain land 2s. 6d. to 5s. Also large tracts rented by villages, the cottars dividing it among themselves, and making the mountain common for their cattle.

BREAKFASTED at Newry, the globe, another good inn,---This town appears exceedingly flourishing, and is very well built; yet 40 years ago, I was told

told there were nothing but mud cabbins in it: this great rise has been much owing to the canal to Loch-Neagh. I crossed it twice---it is indeed a noble work. I was amazed to see ships of 150 tons, and more, lying in it, like barges in an English canal. Here is a considerable trade. Take the road to Market-hill: the town parks about Newry let up to 2l. and 3l. an acre, which is here English measure. They sow oats chiefly as I advanced, with a little barley---no fallows, and but little clover. Within four miles of Market-hill, the course, 1. Oats. 2. Oats. 3. Oats. 4. Oats. 5. Oats, and then leave it to the rubbish, which comes for 3 or 4 years: some potatoes, and after it flax. I am now got into the linen country, and the worst husbandry I have met wit; my lord chief baron is right. Rents 10s. to 13s. the English acre; all the farms are very small, let to weavers, &c. They measure by the boll of 10 bushels, a good crop of oats three to four and an half.

THIS road is abominably bad, continually over hills, rough, stoney, and cut up. It is a turnpike, which in Ireland is a synonymous term for a vile road, which is the more extraordinary, as the cross ones are the finest in the world. It is the effect of jobs and imposition which disgrace the kingdom; the presentment roads shew what may be done, and render these villainous turnpikes the more disgusting.

CALLLED at Lord Gosfort's, to whom I had been introduced by Lord Harcourt, but he was not yet come from Dublin; his steward, however, gave me the few following particulars. About Market-hill they measure by the English acre, and let from 8s. mountain,

mountain, to 12s. and 14s. The courses are;
 1. Oats. 2. Oats. 3. Oats. 4. Oats. 5. Oats.
 6. Oats; then leave it to itself to graze three or four
 years, this on good strong land; on worse three or
 four of oats, and three or four of grass, that is weeds;
 they reckon the best management to lime it on the
 sod, then three crops of oats, and three years left,
 and that one liming will last many years. Measure
 by bolls, each 10 bushels; sow six bushels of oats to
 an acre; a good crop 60 bushels, but that is extra-
 ordinary; 4 or 5 bolls common; and the crops will
 hold good through the whole course, the first will be
 the worst. Another course, 1. Potatoes. 2. Flax,
 or oats. Also after several crops of oats, plough
 thrice and sow flax seed, two bushels to an acre,
 and yield 12 to 18 stone to every bushel of seed.
 Never sow flax twice running. Plant 16 to 18
 bushels of potatoes on an acre; they do not live en-
 tirely on them, but have oatmeal, oaten bread, and
 sometimes flesh meat, once or twice a week. In
 spinning a woman will do 5 or 6 hanks a week, and
 get 30s. for it by hire, as wages for half a year;
 a girl of 12 years old three-halfpence, or two-pence
 a day. A man will earn, by weaving coarse linen
 1s. 2d. and 1s. 6d. by fine. The manufacturers live
 better than the labourers; they earn 3s. 6d. a week
 in winter, and 4s. in summer. Manufacturers have
 all from 6 to 15 acres from 6s. to 20s. an acre, and the
 house into the bargain: generally two or three cows,
 and a bit of flax. The country labourers have also
 from 6 to 10 acres. A cabin without land 11. 1s.
 a year. Cloth and yarn never so dear as at present,
 and the people all employed---none idle. A cottage-
 building 5l. ditto stone and slate 80l. A great rise
 of both labour and provisions; 20 years ago beef
 1d. and

fd. and 1½d. per lb. and labour 3d. and 4d. a day. Religion mostly roman, but some presbyterians and church of England.—Manufacturers generally protestants. Their wives drink tea for breakfast. No cattle but for convenience among the small farmers. No farms above 100 acres, and those stock ones, for fattening cows and bullocks. Very few sheep in the country. Manures are lime, of which 20 to 60 barrels per acre, at 1s. 6d, will last for ever; best for light land—marle grey and white, best on heathy ground. Some soapers waste at Ardmagh and Newry, but not much. Reached Ardmagh in the evening; waited on the primate:

JULY 23d, his Grace rode out with me to Ardmagh, and shewed me some of the noble and spirited works by which he has perfectly changed the face of the neighbourhood. The buildings he has erected in seven years, one would suppose, without previous information, to be the work of an active life. A list of them will justify this observation.

He has erected a very elegant palace, 90 feet by 60, and 40 high, in which an unadorned simplicity reigns. It is light and pleasing, without the addition of wings or lesser parts, which too frequently wanting a sufficient uniformity with the body of the edifice, are unconnected with it in effect, and divide the attention. Large and ample offices are conveniently placed behind a plantation at a small distance: around the palace is a large lawn which spreads on every side over the hills, and skirted by young plantations, in one of which is a terrace, which commands a most beautiful view of cultivated hill and dale. The view from the palace

is much improved by the barracks, the school, and a new church at a distance, all which are so placed as to be exceedingly ornamental to the whole country.

THE barracks were erected under his Grace's directions, and form a large and handsome edifice. The school is a building of considerable extent, and admirably adapted for the purpose: a more convenient or a better contrived one, is no where to be seen. There are apartments for a master, a school-room 56 feet by 28, a large dining-room and spacious airy dormitories, with every other necessary, and a spacious play-ground walled in; the whole forming a handsome front: and attention being paid to the residence of the master (the salary is 400*l.* a year), the school flourishes, and must prove one of the greatest advantages to the country of any thing that could have been established. This edifice entirely at the primate's expence. The church is erected of white stone, and having a tall spire makes a very agreeable object, in a country where churches and spires do not abound—at least such as are worth looking at. Three other churches the primate has also built, and done considerable reparations to the cathedral.

He has been the means also of erecting a public infirmary, which was built by subscription, contributing amply to it himself.

A PUBLIC library he has erected at his own expence, giving a large collection of books, and endowed it. The room is excellently adapted, 45 by 25, and 20 high, with a gallery, and apartments for a librarian.

He

He has further ornamented the city with a market-house and shambles, and been the direct means, by giving leases upon that condition, of almost new building the whole place. He found it a nest of mud cabbins, and he will leave it a well built city of stone and slate. I heard it asserted in common conversation, that his Grace, in these noble undertakings, had not expended less than 30,000*l.* besides what he had been the means of doing, though not directly at his own expence.

WHEN it is considered that all this has been done in the short term of 7 or 8 years, I should not be accused of exaggeration, if I said they were noble and spirited works undertaken upon a man's paternal estate; how much more then are they worthy of praise when executed not for his own posterity but for the public good? Amidst such great works of a different nature, it is not to be expected that his Grace should have given much attention to agriculture; yet has he not neglected it. In order to improve the breed of cattle in the country, he brought from England a bull and several cows of the true Teeswater breed, of a vast size, with short Holderness horns; they give a great quantity of milk, and he has preserved the breed pure and to their size, by feeding the calves with much attention: they have a considerable quantity of milk given them while at grass.

In the husbandry of the neighbourhood no other corn is raised than oats, and they have a notion that wheat will not do here: to convince them of the contrary, the primate has fallowed a large field, manured it differently for a comparison, and sowed wheat.

The crop I viewed, and found it a very fine and a very clean one.

In order that I might be well informed about the linen manufacture, his Grace was so obliging as to send for one of the most considerable merchants in the city, Mr. Mageough, who very intelligently gave me all the particulars I wanted.

THE following circumstances I owe to his information. About Ardmagh the farms are very small; the principal people occupy from 40 to 60 acres, these sow some flax as well as raise corn, but in general they are from 5 to 20 acres; the only object the linen manufacture. This is the case all the way to Newry; also to Monaghan, but in that county the farms are somewhat larger. Towards Lurgan, Dungannon, and Stewart's-town, much the same. Rents around Ardmagh are from 7s. to 15s. Much mountain let in gross by town lands not measured; average 10s. The whole county much lower. To Newry 10s. To Dungannon 11s. To Lurgan 10s. The manufacturers, under-tenants on the church lands, have leases of 14 years; on other lands 3 lives, which make a visible difference in culture. A manufacturer who has 10 acres will keep 2 cows and a horse, a pig, but not much poultry; he will sow $1\frac{1}{2}$ or 2 bolls of oats on 3 acres—a bushel, or $1\frac{1}{4}$ of flaxseed on a rood or a rood and an half, and half an acre of potatoes, or as much as he can dung. His course is,

1. Potatoes. 2. Flax. 3. Oats, and let it then lay for pasture, not sowing in general any grasses—some of them a little clover; the benefit of which is very great. When his son grows up and marries, he
universally

universally divides his farm with him, building a new mud cabbin : thus farms are constantly growing less and less. This is found very hurtful, by reducing them so low that they will not supply the people with necessaries. Scarce any of them have potatoes and oats to feed their families ; great importations from Louth, Meath, Monaghan, Cavan, and Tyrone, besides what comes occasionally from England and Scotland. Their food principally potatoes and oat-meal ; very little meat ; the better sort, however, buy some beef for winter, but it is not common. Many of them live very poorly, sometimes having for 3 months only potatoes and salt and water. There are few labouring poor unconnected with the manufacture, but when it is not in a very flourishing state, they live better than those employed by linen. No flax farmers ; scarce any but what is raised in patches by the cottars. Upon light or mountain lands they prefer the American flax-seed. Upon heavy or clay lands they sow Riga, Dutch, or Flanders seed ; the quantity they get is more and better in quality than from the American, and will last 20 years. For fine linens they never save seed, pulling it green : but for coarse linens they save as much as they can.

I was informed that the produce of the flax depended on the oiliness of it, and that the goodness of the linen on not being too much bleached, which is only an exhalation of the oil. If so, it should appear that perfecting the seed must injure both linen and flax : but still the contrary is the opinion here. The quantity of seed from $2\frac{1}{2}$ to 3 bushels per acre : or 4 bushels of their own, from the idea that it is not so well saved.

They plough their potatoe-land or barley-stubble once the end of march or april, and sow it. But it is found by several that the best flax, and the greatest quantity, is by sowing their poorest lands that have been run out by oats, upon 3 ploughings, and the reason they do it not more is for want of ability to give the 3 ploughings. They weed it very carefully. They generally pull it the latter end of july and the beginning of august, and immediately ripple it to get the seeds off, and then lay it into water from 6 or 7 to 12 days, according to the softness of the water, trying it before they take it out: the softer the water the shorter the time, generally bogs or pools, the bog the best. They lay it so thick as to fill the pool. When they take it out, they spread it on meadow ground from 10 to 15 days, according to weather; if that is very bad, much of it is lost. Upon taking it up, they dry by laying it in heaps on a hurdle fixed upon posts, and making a fire of turf under it. As fast as it dries, they beat it on stones with a beetle, then they scutch it to separate the heart or the *shoves* from the rest. Mills are invented for this, which if they use, they pay 1s. 1d. a stone for it, which is cheaper than what their own labour amounts to. They next send it to a flax-heckler, which is a sort of combing it, and separates into two or three sorts; here generally two, tow and flax. In this state it is saleable. The crop is from 18 to 48 stones per acre of flax rough after scutching. The medium is 30 stones, and it sells from 6s. 8d. to 9s. Much Dutch flax is imported, also from Riga, Koningsberg and Petersburg, which generally regulates the price of their own; the 12 head Petersburg is much the best of the common sort, 12 head Narva not so good, but Marienburg better than Narva. The 9 heads to a bunch

a bunch coarse. Dutch blay and Dutch white, good and wirey; but the best of all is the silver blay from Bristol, which comes down the Severn: it is fuller of oil, softer and better than any other sort. The average price of their own 2l. 8s. to 2l. 12s. per cwt. or 7s. to 7s. 6d. a stone. It is liked better than the imported.

WE next come to the manufacture. The stone-rough after heckling will produce 8 lb. flax for coarse linen, and 3½ lb. of tow. The 8 lb. will spin into 20 dozen of yarn, or 20 hanks or 5 spangles fit for a ten hundred cloth, which is the common sort here; and the earnings in spinning will be from 5s. to 6s. 8d. the five spangles, and tis very good work to do that in 20 days by one woman; in common 25 days, consequently they earn something better than 3d. a day. Seven and a half spangles will weave into a piece of linen (ten hundred sort) of 25 yards long, and yard wide. Thus one stone and a half of flax at 7s. a stone, market-price, will make that piece. But the tow remains 4½ lb. which is 2s. 2d. of which they make a coarser linen. 30 stone, the produce of an acre, make therefore 20 such pieces. The price of this cloth is from 10½d. to 11½d. a yard brown, the state in which they sell it. Average 11d. The fixed price for weaving it is 2½d. a yard. But this is when the poor are not able to raise it, and work for hire for those who advance them the yarn. A great deal is done in this manner, as well as by those who raise the flax, and go thro' the whole of the operation. When the weaver has made his piece of cloth, he goes into the market of Ardmagh, which is every Tuesday, and sells it to the draper as he would any other commodity, always receiving the money on the spot, as there is

no credit. The draper names the price, and the man takes or refuses it. There are many drapers, so that the man tries whom he pleases: there is no combination against the seller, but rather a competition. The draper generally has the bleach greens; and the expence to him of bleaching is 4l. 10s. to 5l. a pack of 30 pieces, or 3s. to 3s. 2d. a piece. Then he either sends it to factors in London or Dublin, or sells it at the linen-hall in Dublin. Some go over to Chester fair themselves, and dispose of it there. In London he gives seven months credit: in Dublin two or three: but if he goes himself to the hall, he gets part ready money. The London factor has six per cent. for selling and advancing the money as soon as sold, and half per cent. for warehouse room and insurance from fire. This is the principal part of the trade about Ardmagh.

In general the manufacture was at the height in 1770 and 1771. In 1772 and 1773 there was a great decline both in price and quantity. In 1774 very low, till May; when a sudden rise from a speculation of sending to America, and for the demand of the Spanish flota, which was detained a year for want of coarse linens, not being able to be supplied from Germany as usual: and since May, 1774, it has continued very flourishing, but is not yet equal to what it was. The decline in 1772 and 1773, owing to the destruction of credit, and to the want of a market; but let me observe that a convulsion in credit necessarily contracts the market. Another circumstance was the price of bread in England, which they think, was so high, that the English could not afford to buy much of these coarse linens, of which they are the great consumers. Germany they consider as the great rival,

rials, and not Scotland. It is thought that their flax is well cultivated, and admits of no great improvement. The emigrations were chiefly in 1772 and 1773. Many weavers and spinners, with all their families, went. Some farmers, who sold their leases, went off with sums from 100l. to 300l. and carried many with them. They stopped going when the war broke out. In 1772 and 1773 many turned farming labourers, which is not the case when the trade is high.

The religion generally roman, some presbyterians: protestants emigrated most. The oak boys and steel boys had their rise in the increase of rents, and in oppressive county cesses.

JULY 24th, took my leave of his Grace, and breakfasted with Maxwell Close, Esq; at ———, who was so kind as to mention a few circumstances in addition, and some in contradiction, to what I had learnt at Ardmagh.

THE manufacture at it's greatest height at present; the price greater, and the quantity also. The emigrations nothing about Ardmagh; but Antrim, and Downe and Derry, many, chiefly idle fellows, who have not been the least missed: some went with money, but the sums not considerable. It was said that Lord Donnegal's high rents were the cause, but when they went they sold their leases, and got 20l. 30l. or 40l. for many, and it was this money chiefly carried. A weaver will earn from 1s. to 1s. 4d. a farming labourer 8d.

COURSE OF CROPS. 1. Potatoes. All their dung for them, the produce 40 or 50 barrels; the best sorts are the London lady, French white, black Spanish. 2. Bere. 3. Flax, the produce 48 stone, scutched, at 8s. 4. Oats.

LIME used much, the price 10d. to 1s. 6d. a barrel. Marle under the bogs, white and light, but little used. Tythes, oats 2s. 6d. to 3s. 6d. Barley 5s. Year's purchase of land fell much in 1772 and 1773. There are many middle men.

THE oak boys began at Blewstone upon the county cess; but in a moment rose to rents, tythes, bogs, and every thing else.

MR. Close has had very fine turnips, with which he fed fat wethers from autumn for the spring markets, and gained thereby 1½d. a lb. difference in price.

Took a ride to see the neighbouring country by Killilean-hill, Fellows-hall, Woodpark-lodge, Lifloony, Tinan, and Glaslough, which indeed is a round that shews the country to advantage; it is a continued picture: stop where you please, you are in the midst of a beautiful landscape. The hills are waving in every variety of outline that can be imagined; there is a great plenty of wood, every tree of which is seen to advantage from the inequality of surface. It is a cheerful, beautiful country, and well worth a traveller's time to take this ride, in order to see it. Ireland, notwithstanding her general nakedness, contains some scenes of beauty, in which wood bears a considerable share. Called in our ride at Mr. Lesly's at Gasslaugh, viewed some of his great improvements: he was absent,

sent, but Mrs. Lesly was so obliging as to walk thro' the woods with us. The lake is a large one, containing 120 acres, and the wood of 100 more spreads over a fine bold hill, and hangs down to the water in one deep shade, the effect remarkably beautiful: additional plantations are made, and walks cut through the whole. In the evening Mr. Lesly came to Mr. Close's, and I then had the pleasure of learning that much of his domain, from being a poor waste tract of little value, was converted to what I had seen, that is, to very fine grass land. The soil is stiff cold clay, the spontaneous growth rushes, &c. ploughed most of it first, and then manured it with either lime or marle: of lime from 100 to 120 barrels per acre, at 7d. a barrel on the ground from stone and turf of his own. Then took a crop of wheat, which proved very fine: after the wheat, laid it down with oats and hay-feed, the oats very good. Sowed the seeds of a hay-loft with clover: has used much compost made of ditch scowerings, lime, marle, &c. and spread it in the same manner as the lime; some, after the land was laid to grass, but did it best on the fallow. Much of the land so wet, that hollow drains were necessary, and made so as to lay them dry, the cuts very numerous, and proved effective. His fences are excellent, two rows of quick, and a ditch six by seven, a dry hedge at top, and the back dressed and planted with forest trees paled in. Mr. Lesly has found the business of improvement profitable, so that if a tenant had the money necessary, he would find it to be the best work he could engage in with a view to profit alone.

JULY 25th, returned through Ardmagh. Passed Sir Capel Molyneux's domain, which seems an extensive

tenfive and very fine one. Near it I observed that the soil was one of the finest red sandy loams I have any where seen; and several pieces of potatoes were planted in drills, which is a practice I had not yet remarked. Dined with Mr. Workman, at Mahon; about that place the size of their farms are from 10 to 20 acres, at about 12s. to 15s. an acre; and some of them hiring 20 acres, will let off five or six at 18s. to 20s. an acre. They are in general very well off as to living; their food is *stir-about*, potatoes, bread of maslin or wheat, and some meat once a fortnight. They are well cloathed, and have plenty of fuel; a man with 20 acres will have 150 kishes of turf a year. A man of 15 acres will have between a rood and half an acre of flax; one acre of potatoes; two to four acres of oats, and will mow two acres; one horse, two or three cows, one young beast, and a pig, but not much poultry. Pigs depend on potatoes. Their course: 1. Potatoes. 2. Flax. 3. Oats, or 4. Oats, and then leave it to grafs itself. Scarce any fallow, a few sow clover, which increafes, to mow for foiling their cows. The weavers universally earn much more than the few country labourers there are. The best flax seed for clay land the Dutch, and for light land the American. Scarce any of them save their own seed, consequently no rippling; it must stand then till dead ripe, which they think lessens the quantity, and makes it coarser. The richer the land the better. Sow generally on one ploughing. They weed it with much care. In watering, clay water reckoned much better than bogs, which they are leaving off. In general they scutch it themselves, and it is cheaper than the mills. Mr. Workman has paid 1s. 6d. for it by hand, and 1s. 1d. to the mills, and found the former cheaper; more flax from

from hand, and much cleaner. Immediately after scutching it is saleable in the market. Price of flax 6s. to 13s. scutched.

The rough stone, after heckling, will produce 8lb. flax for coarse linen; and 4lb. of dressed tow, and some for *backens*. The spinners earn from 3d. to 4d. a day. The weavers earn 10d. to 1s. 4d. The coarse cloths and yarn never so high as at present. Weavers very often turn labourers, which is attributed to so many being, contrary to law, bound as apprentices for 2 years, instead of 5, by which means they are bad hands, and can only do the very coarsest work. As to health, they rarely change their profession on account of the sedentary life; they take exercise of a different sort, keeping packs of hounds, every man one, and joining, hunt hares: a pack of hounds is never heard, but all the weavers leave their looms, and away they go after them by hundreds. This much amazed me, but I was assured it was very common. They are in general apt to be licentious and disorderly; but are reckoned to be rather oppressed by the county cesses for roads, not of general use. There is some wheat, about Kilmore much; a middling crop 5 barrels. Oats yield here 6 barrels on an average. Mr. Workman, 9 years ago, introduced the use of lime, and they are since coming fast into it; the effect very great, though the soil is a wet loam on clay without any stones. No draining. They are in general very bad farmers, being but the second attention, and it has a bad effect on them, stiffening their fingers and hands, so that they do not return to their work so well as they left it.

In the evening reached Mr. Brownlow's, at Lurgan, to whom I am indebted for some valuable information. This gentleman has made very great improvements in his domain: he has a lake at the bottom of a slight vale, and around are three walks, at a distance from each other; the center one is the principal, and extends 2 miles. It is well conducted for leading to the most agreeable parts of the grounds, and for commanding views of Loch Neagh, and the distant country; there are several buildings, a temple, green-house, &c. The most beautiful scene is from a bench on a gently swelling hill, which rises almost on every side from the water. The wood, the water, and the green slopes; here unite to form a very pleasing landscape. Let me observe one thing much to his honour; he advances his tenants money for all the lime they chuse, and takes payment in 8 years with rent.

UPON enquiring concerning the emigrations, I found that in 1772 and 1773, they were at the height; that some went from this neighbourhood with property, but not many. They find here, that when provisions are very cheap, the poor spend much of their time in whiskey-houses. All the drapers wish that oatmeal was never under 1d. a pound. Though farms are exceedingly divided, yet few of the people raise oatmeal enough to feed themselves; all go to market for some. The weavers earn by coarse linens 1s. a day, by fine 1s. 4d. and it is the same with the spinners, the finer the yarn the more they earn; but in common a woman earns about 3d. For coarse linens they do not reckon the flax hurt by standing

standing for seed. Their lown flax is much better than the imported.

THIS being market-day at Lurgan, Mr. Brownlow walked with me to it, that I might see the way in which the linens were sold. The cambricks are sold early, and through the whole morning; but when the clock strikes eleven, the drapers jump upon stone standings, and the weavers instantly flock about them with their pieces; the bargains are not struck at a word, but there is a little altercation whether the price shall be one halfpenny or a penny a yard, more or less, which appeared to me useless. The draper's clerk stands by him, and writes his master's name on the pieces he buys, with the price; and giving it back to the feller, he goes to the draper's quarters, and waits his coming. At twelve it ends; then there is an hour for measuring the pieces, and paying the money, for nothing but ready money is taken; and this is the way the Business is carried on at all the markets. Three thousand pieces a week are sold here, at 35s. each on an average, or 5,250l. and per annum 273,000l. and this is all made in a circumference of not many miles. The town parks about Lurgan let at 40s. an acre, but the country in general at 14s. The husbandry is exceedingly bad, the people minding nothing but flax and potatoes.

LEAVING Lurgan I went to Warrenstown, and waiting upon Mr. Waring, had some conversation with him upon the state of the country. He was of opinion, that the emigrations had not thinned the population, for at present they are crowded with people; but he thinks if the war ends in favour of the Americans,

Americans, that they will go off in shoals. Very few roman catholics emigrated. The rising of the steel-boys was owing, as they said, to the increase of rents, and complaints of general oppression; but Mr. Waring remarked, that the pardons which were granted to the oak boys, a few years before, were principally the cause of those new disturbances.

Cross the road to Mr. Clibborn's, who gave me much information of the greatest value concerning the linen manufacture.

THE stone of flax, rough after heckling, will produce $3\frac{1}{2}$ lb. or $3\frac{3}{4}$ lb. of flax for 1800 linen, and the $3\frac{3}{4}$ lb. will spin into 60 hanks. Spinners are generally hired at 10s. 6d. to 12s. the quarter, besides board and lodging; and for that they spin 4 hanks a week of 6 hank yarn for 1600 linen, and 3 a week of 8 and 9 hank yarn for 1700 linen. As soon as the yarn is spun it is boiled. The boiling changes it 1 hank in a pound; 6 hank yarn will become 7. If flax is given out to be spun, they will get 3d. a hank for 6 hank yarn for spinning it, and they do one a day. The linen made here is from 8 hundred to 24; of coarse linen 10 hundred the common; and of fine, 13, 14 and 15. The pieces are 25 yards long, and yard wide.—53 hanks for a web of 1600,—63 for 1800.—49 hanks will make a piece (*a web*) of 1400, which sells at 20d. brown. The weaver is paid 10s. for weaving the 14 hundred web, and he will weave it in 9 days. For cambricks the yarn is not boiled, and therefore so much finer; they will earn more at it than at linen, but it is not so saleable.

MUCH

Much done by drapers advancing the yarn, and paying for the weaving at so much a yard. For 8 hundred 2½d. a yard.—10 ditto 3½d.—13 ditto 3½d.—16 ditto 7d.—18 ditto 10½d.—24 ditto 1s. 7½d.—The finer the linen the more they earn. In fine linen, going from it to the plough or spade, &c. hurts their hands so much, that they do not recover it for a week; but not common for them to do it.

1 Stone, 3½lb.—60 hanks—15 weeks—1 woman.
2 stone 30: 3 stone 45. ½ stone 7½. 3½ stone 52.—Weaving 63 hanks into a web of 1800, he has 20s. for it, and does it in 12 days; but all preparations, dressing, &c. included, it will be three weeks, at which rate he can work for a year. The prices of the cloth are:

	Market low.			Market high.	
	s.	d.		s.	d.
8 hundred	0	8½	-	0	11½
10 ditto	1	0	-	1	2½
12 ditto	1	2	-	1	4½
15 ditto	1	7	-	1	9
17 ditto	2	4½	-	2	6
20 ditto	3	10	-	3	10
24 ditto	7	0	-	7	0

BLEACH-GREENS sometimes belong to the drapers; sometimes not. In bleaching it is steeped in cold river water; or sometimes not at all; then to the wash-mills for washing; then boiled in barilla ashes; (or American or Russian pot-ash) imported from Alicant to Newry or Belfast; the quantity of the barilla uncertain, about half a bushel to 100 pieces.

VOL. I.

L

Boiling

Boiling 6 hours. Washed thoroughly after this and spread on grafs for 4 days; lift it and boil it again as before; then to the grafs again, and repeated till nearly white for rubbing. Next put it into a scald of soap, and from thence into the rubbing boards; if coarse cloth one rub sufficient, but for fine three or four. After rubbing, washed, and put to sower in vitriol and water, 24 hours will do, but 10 days no injury; fine cloth 3 serves, one after every rub, but for coarse one rub is sufficient. This sowering merely for cleansing and purging. After sowering it has a scald of soap, from which well washed, wrung, and made ready for starch and blue; then dried and beetled, which is done by a mill, after which done up with a screwing machine for sale. The expence of bleaching 3s. a piece, for coarse 4s. middling 5s. fine 6s. These the particulars commonly known among bleachers; there are secrets in the trade which they of course do not communicate, but not so many I apprehend as generally supposed; for where there are few, or even none, but with an appearance of them, all is supposed by the vulgar to be mystery. Upon the above account I have only to remark, that the rubbing appears to me an operation for giving the cloth beauty at the expence of strength. It is a most severe operation, being drawn between boards full of teeth, which are made for the professed purpose of adding to the friction; and the effect is such, that large quantities of knap are constantly taken out of the machine. This is a very fine invention for wearing out a manufacture as soon as made.

MR. CLIBBORN was ready enough to confess that this work is carried too far, but the London drapers,
he

he says, demand thick cloths, and this operation contracting the breadth of the piece gives it a thick appearance, which they are fond of. The beetling does not appear to me to be near so severe an operation. It is a continued system of perpendicular strokes upon the cloth wound round a cylinder, for the purpose of smoothing it, and giving it a gloss. It is sold at Dublin; half the manufacture to London from Newry, Belfast, or Dublin. Cambrick all sold in Dublin: it increases much. In 1771 more goods made than at present. England the great consumption of Irish linens: Scotland nor Germany interfere with those above described. No rivals in the Irish 7-8ths and 3-4ths yard wide, but in the dowlas and diaper the Germans; and in sheeting the Russians. The dowlas and sheeting are made in King's and Queen's counties, and Westmeath. Diapers here, in which the same yarn as above, the breadths various, and the weavers make more by it than by linen. The trade as brisk at present as the rest. Hands are plentiful for the demand, notwithstanding the emigrations; but the men do not work more than half what they might do, owing to the cheapness of provisions making them idle, as they think of nothing more than the present necessity. A general remark of all who know the trade, that when provisions are dear the more goods come to market; what they raise themselves not half feeding them. A child 7 years old earns 1d. a day spinning. There are as many employed in diaper as in cambricks. Manufacture not doubled in 15 years, about 1-3d or 1-4th increase in that time. The present high price of linens and yarn attributed to the increased demand at Manchester for yarn: it is now 9d. a hank. Also to the

Spanish market for linen being almost a new trade. Likewise to foreign linens coming dearer at market than formerly. The weavers and spinners generally live upon oatmeal and potatoes, and milk, with meat once a week, and have their bellyful.

A FARM of 6 acres — 1½ hay : 1 rood flax : 1 acre potatoes : 1 oats : 2 cows, 1 horse, 2 sheep. Rent 5l. 12s.

1. POTATOES usually 160 bushels to the acre.
2. Flax. 3. Oats. 4. Left 2 years.

1. PLOWN 3 or 4 times for flax. 2. Wheat, or barley. 3. Oats. 4. Oats. 5 Left.

VERY few save their seed; but this more than usual, owing to the import from America falling off. Much damaged by standing for seed from *firing*, and a great chance run of losing the crop; but if the weather is good not the worse for coarse linen, but will not do at all for fine. Clay land does best for it. They use much lime, 140 barrels per acre, at 1s. 1d. at kiln, and 6d. more carriage: they lay it on for wheat and barley. It is reckoned to pay so well, that all use it who are able.

Rent of a cabin and garden, — 1 10 0

Grass for a cow, — 1 10 0

Hay for ditto, — 1 10 0

4 10 0

MANY

Many weavers' families have tea for breakfast. Rents rather lower than 4 or 5 years ago. Leaving Warrenstown, reached Hillsborough that night; passed through Dromore, a miserable nest of dirty mud cabbins. Lord Hillsborough has marked the approach to his town by many small plantations on the tops of the hills, through which the road leads. The inn of his building is a noble one for Ireland.

JULY 27th, walked to the church built at the expence of Lord Hillsborough; there are few such in Ireland. It is a very handsome stone edifice, properly ornamented, and has a lofty spire, which is a fine object to the whole country. The form of the church is a cross, the body of it 160 feet long, and the cross-ile 120. The step to the communion table is of one stone out of his lordship's quarry, 21 feet long, and 2 broad. To the improvements—the lake, woods and lawn are pretty; but a well built and flourishing town in the hands of an absentee, whose great aim is to improve and adorn it, does him more credit than twenty domains.

REACHED Lisburne, and waited on the bishop of Downe, who was so obliging as to send for an intelligent linen-draper, to give me such particulars as I wanted of the manufacture in that neighbourhood. About this place chiefly fine cloth, from 14 to 21 hundred. The spinners are generally hired by the quarter, from 10s. to 12s. lodging and board, and engaged to spin 5 hanks of 8 hank yarn in a week. To the 14 hundred linen 46 hanks—18 ditto 58 hanks—21 ditto 66 hanks. In weaving it is common for one man to have several looms, at which journeymen

weavers work, who are paid their lodging and board, and one-third of what they earn, which may come to 2s. a week on an average. The drapers advance the yarn, and pay for the weaving by the yard;—for a 13 hundred 4d. — 18 ditto 9d. — 21 ditto 1s. 1½d. For 18 hundred linen, a woman spins 6 hanks a week, which 6 hanks weigh about a pound, at the price of 8d. a hank. The manufacture carried on in the country very much by little farmers, who have from 5 to 10 acres, and universally it is found, that going to the plough or spade for a day or two spoils them for their weaving as many more. Think that flax that has stood till seed is ripe, will not do for more than a 1600 web. Rent for sowing flax on potatoe land 4d. a perch long of 21 feet and 10 broad. The crop at a medium 10 stone from a bushel of seed. The stone 16lb. A stone of good flax, rough, will produce 8lb. after heckling, and spin into it as many hanks per lb. as the sort is, that is, 6 hanks of 6 hank yarn, 7 of 7. The weavers, spinners, &c. live in general on potatoes and milk, and oat bread, and some of them meat once a week. Will work only for support; meal and cloth never cheap together, for when meal is cheap, they will not work. Rent of land from 10s. to 22s.

LEAVING Lisburne, took the road to Belfast, repeating my enquiries; in a few miles I found the average rent 16s. per Cunningham acre. Much flax sown, 3½ bushels of seed generally sown to an acre. Eight stone of flax from half a bushel of seed is reckoned a very good crop. If they have not land of their own for sowing, they pay 12s. rent for what half a bushel requires: this is 4l. 4s. per acre, but it includes ploughing, harrowing, and getting ready for the

the feed. Heckling is 1s. 2d. a stone, and half the weight is lost; the produce will be 4lb. flax and 4lb. tow; which the Scotch generally buy at 3d. a lb. To a stone heckled there are 96 hanks; and to the web of cloth there are 28 hanks for the web, and 30 for the warp. A weaver is 3 weeks doing it, and is paid 17s. From Lisburne to Belfast on the river Leggon, there are 12 or 13 bleach-greens. The counties of Downe and Antrim are computed to make to the amount of 800,000l. a year, and near one third of it in this vale.

PASSED Lord Dungannon's at Bever, whose plantations are got up to a fine shade by means of planting very thick; went to Castle-hill, Mr. Townley Blackwood's. Rents there are 15s. an acre, Cunningham measure. Average of the county of Downe 10s. Sowing clover with flax is practised here, coming in much, and found to be very beneficial.

In the evening to Belfast. I had letters to Mr. Portis and Mr. Holmes; but upon calling at their houses, found the first in England and the other in the country: so considerable a place as Belfast demanded a better account than I could give without assistance. At dinner at Mr. Blackwood's, Dr. Haliday was mentioned as a gentleman of general knowledge, and at the same time of a liberal disposition: it was the only name I knew at Belfast after my two letters proved useless. I determined to make known to Dr. Haliday my wants, and beg his assistance in gratifying them, and accordingly wrote a note and sent it. He also in the country. Still I was unwilling to give up all thoughts of Belfast;

152 NEWTOWN-STEWART.

and as I had planned going to Strangford, and from thence to Lisburne in my way north, I determined upon returning again to Belfast, in order for a farther chance of meeting with somebody that could answer me a few questions about the progress of the country of the place.

JULY 28th, took the road to Portaferry, by Newtown, where I breakfasted; it is an improving place, belonging to Mr. Stewart, who has built a very handsome market-house, and laid out a square around it, which he designs building. I was informed here that the linen manufacture is much less considerable than it was. Since the decline of 1772 and 1773, many weavers they told me had turned labourers, but the spinning business continues as much as ever. Leaving the town, the road leads at once to the shore of Strangford Loch, where I observed heaps of white shells, and upon enquiry found that they dig them at low water in the Loch in any quantities: they lay them on their lands, but do not find that they last so long as lime. Farms rise to 40 acres; rents 15s. to 21s. Cunningham measure. Wheat yields to 30 bushels; oats to 40. As I advanced, making farther enquiries, still I was told that the weaving, at present, was not near so good as 7 years ago. Flax, in some parishes, pays no tythe; in others it is taken in kind. Two bushels of potatoes on a ridge 7 yards long and 2 wide are a very good crop. Rents from 10s. to 21s. A common course: 1. Oats on lay, 2. Wheat. 3. Oats. 4. Barley. 5. Oats. 6. Barley. 7. Oats. 8. Left for lay, a few few clover or rye-grass, for two years.

Pass

From Newtown Stewart, a row of neat stone and
 stone cabins, in the neighbourhood of some new
 plantations which surround an improved lawn, where
 Mr. Stewart intends building. The soil is in general
 light, dry, sandy or gravelly. Sea-weed is collected
 for burning into kelp all along the coast of the loch.
 There are many lime-kilns all the way to Portaferry;
 I was told 35, and that 15 years ago there was only
 one, so much is the improvement of land increasing.
 The stone is brought by sea from Carlingford, and
 burnt with coals and tuff. The expence reckoned
 is. 1d. a barrel. It lasts 10 years. Shells are some
 time before they work, but they last longer than
 lime, directly contrary to what I was told before.
 Rents 16s. to 20s. Remarked several great rocks on
 the shore, which seem to have no connection with the
 coast, which is not rocky, nor at all in unison with
 such fragments. Reached Portaferry, the town and
 seat of Patrick Savage, Esq; who took every means
 of procuring me information concerning that neigh-
 bourhood.

JULY 29, collected some concerning the fisheries.
 It is a summer herring-fishery for the home consump-
 tion of the country; they are now taken chiefly off
 the peninsula of Ards. Formerly the great take was
 in the loch, till within these four years. To the
 whole coast they reckon that there are 400 boats;
 they are of four or five ton burthen, and cost 15l. a
 boat, the nets cost 10l. and there are four to each
 boat. A boat will catch six mazes of herrings in a
 night, each 500; and they sell at 8s. 8d. a maze on
 an average: it is, however, a precarious fishery. In
 1774 it was very good: in 1775 very bad; this year
 it has begun finely. It begins the 12th of july, and
 finishes

finishes the end of september. It is in general carried on by shares; the boat and nets have one half, and the four men the other half. They earn, upon an average, 1l. 1s. each a week by it: 110 boats belong to Portaferry. The men are chiefly from the country; the whole barony of Ards are fishermen, sailors, and farmers, by turns. This little port has a tolerable share of trade; they have 12 ships, which go annually to Loch Swilly herring-fishery, which is a winter one, on the bounty of 20s. a ton; they have 15 ships belonging to the place, from 30 to 150 tons, at six men each, and many others trade here. Coals are brought from Whitehaven; and from Gottenburgh and Norway timber and iron. Trade increases, and the place is much more flourishing than it was.

Rode in the evening to Millen Hill on the coast of Ards, to see the herring fleet go out. It is in the town-land of Tara, and is an excellent spot for a light-house, which is much wanted on this coast, for it is exceedingly rocky and dangerous from St. John's point to Donaghadee, so that no winter passes without shipwrecks, and in some there are a dozen. Under the hill appeared the north and south rock, with foul ground all around. A light-house might be built here for 60l. and the annual expence would not exceed 150l.

THE barony of Ards is in general a wet, strong, or clay soil, with a good deal of bog; lets on an average at 10s. 6d. an acre, the whole county 10s. the size of the farms on a medium about 40 acres, a few up to 100, and many down to five in weavers hands: Course of crops, 1. Potatoes dunged for. 2. Wheat, yields

yields from 28 to 40 bushels, but reckon it by cwt. 3. Barley. 4. Oats. 5. Clover for three years, or clover and hay-seeds in case designed to lay longer, 6. 7. and 8. Oats. Also, 1. Potatoes. 2. Flax. 3. Corn, &c.

A GREAT deal of lime used from Carlingford, the stone is brought and burnt with Milford or Scotch culm, and costs them, when burnt, about 11d. a barrel. It has been found very beneficial, has been used about 10 or 12 years: it does best on middling land, neither very dry nor wet. Sea-sand is much used for strong clay, and brings the finest crops that can be. White marle from under the bogs they prefer to lime; it improves land so much that it will never be as bad again. Wherever they can get shell sand they do, and find the benefit very great: seaweed they also use for their barley lands what they get in winter, but in summer they dry and burn it into kelp. Cattle very trifling, only small stocks for convenience. The principal religion is presbyterian.

If a weaver has, as most have, a crop of flax, the wife and daughter spin it, and he weaves it; if he is not a weaver, but employed by his farm, they carry the yarn to market. The diet of the poor is oaten bread, potatoes, milk, herrings, &c. The little farmers generally have meat once a week in summer, and salted for winter. All keep cows, pay for summer grazing 11. 7s. and buy hay for the winter to the value of 11. 10s. They all keep pigs, not much poultry. Their fuel both turf and coals; coals 13s. a ton. Car, horse, and driver, a day, 1s. 4d. A new car 40s. to 31. A plough 10s. 6d. A harrow 15s. Eight pound of flax, and three of tow, worth 6d. the stone, rough;

rough, make 30 hanks of yarn for a 1400 linen; one woman will spin it in 30 days, and earn 4d. a day. Forty-two hanks make a web of 25 yards, which is wove in two weeks, and he earns 5d. a yard, or 4½d. and will sell green for 17½d. or 18d. a yard. Not a bleaching green in all Ards for want of water. All along the coast of Ards and in Strangford Loch, sea weed is collected by the country people with great diligence, for burning into kelp; it yields at present from 40s. to 50s. a ton, the bleach greens have much of it, and the rest exported to England. Some gentlemen, who keep their shores in their own hands, pay the men 20s. a ton for collecting and burning: at other times they pay rent for the shore. In Loch Strangford the kelp is better than on the open shore: an instance of industry in this Loch deserves to be recorded. It is not uncommon for the men to draw stones from their fields, and spread them on the shores in order to make the weed (*fucus*) grow; a good crop being only obtained from rocks and stones. Upon the coast of Ards, they have in winter much tangle weed, which they collect very carefully, form into heaps, and when rotten spread it on their barley lands, and get very fine crops, but it is not lasting.

The plentifulness of the country about Portaferry, Strangford, &c. is very great: this will appear from the following circumstances, as well as the register of butchers meat and common poultry elsewhere in the island. Pigeons 2s. a dozen. Rabbits 4d. a couple. The fish are, garbat 4s. sole 10d. a pair; brel and haddock 3d. each; lobsters 5s. a dozen; oysters 10d. a hundred; john dory, gurnet; whiting 4d. a dozen; mackarel,

mackarel, mullet, partridges, and quails in plenty. Wild ducks 40d. to 1s. Widgeon 6d. a couple, barnacle 10d. each; teal 6d. a couple, plover 3d.

This country is in general beautiful, but particularly so about the freights that lead into Strangford Loch. From Mr. Savage's door the view has great variety. To the left are tracts of hilly grounds between which the sea appears, and the vast chain of mountains in the Isle of Man distinctly seen. In front the hills rise in a beautiful outline, and a round hill projects like a promontory into the freights, and under it the town amidst groups of trees; the scene is cheerful of itself, but rendered doubly so by the ships and herring-boats sailing in and out. To the right the view is crowned by the mountains of Mourne, which, wherever seen, are of a character peculiarly bold; and even terrific. The shores of the Loch behind Mr. Savage's are bold ground, abounding with numerous pleasing landscapes; the opposite coast, consisting of the woods and improvements of Castle Ward, is a fine scenery.

JULY 30th, crossed the freights in Mr. Savage's boat, and breakfasted with Mr. Ainsworth, collector of the customs; he gave me the following particulars of the barony of Lecale, of the husbandry of which I had often heard as something better than common. The soil varies near the sea, stoney loam, dry sound good land, some without stone between the rocky hills, some very stoney; the land is light, as may be judged from two harrows being usually in a plough; lets on an average from 12s. to 28s. average 20s. the whole county 20s. The

measure

measure the plantation acre. The south coast is the richest. Farms rise from 5 to 30 acres; the little ones are all manufacturers: there are some of 30, and perhaps 40, that are not weavers, but most of them employ looms. The division of farms among the sons, have brought them so low that they have been obliged to weave for subsistence. In the richer parts they summer fallow, and the course then is;

1. FALLOW. 2. Wheat, average produce 18 cwt.
3. Barley ditto, a ton per acre. 4. Oats ditto, four hhd. each, 12 bushels. 5. Pease. 6. Barley.
7. Clover (of which they sow much) for two years.
8. Barley. 9. Oats. 10. Wheat.

1. POTATOES 400 bushels, 2. Barley, one ton and a half. 3. Barley. 4. Clover for two years, much of it soiled in the stable, a practice which encreases. Also,

1. PLOUGH-LAY for oats. 2. Wheat. 3. Barley. 4. Clover or pease.

1. POTATOES. 2. Flax. 3. Barley. 4. Barley. 5. Clover two years. Have lately got into the way of eating down a three-year old lay, and plough it in july, and once or twice more for wheat: but to sow such with pease or beans on one earth, and then take the wheat, would be much better. Pease esteemed a refreshment, and enables them to have 1 or 2 crops of white corn. Great quantities of barley sown, being their principal crop. No turnips. Their manures are marle, shells, and sea weed. Marle has been used greatly for many years, it is said

said for above 60 : it is white marle from the bottom of bogs, and some of it immediately under the surface ; they carry it on horseback in bags, which hold each four bushels, and they lay about 450 to 500 bags per acre. When the farmer has not marle on his own ground, he purchases it from his neighbour, and pays from 1l. 1s. to 1l. 10s. for liberty to raise it, and if they carry it a mile, or a mile and an half, it costs them 6l. an acre. They are reckoned very much to have exhausted their land ; for upon the credit of a marling they will take 20 corn-crops running, and, as a proof of this, I was told, that the deanery of Down, which consists of tythes in Lecale, was 2,200l. a year, 35 years ago, whereas it is now no more than 1600l. owing to the decline of the Lecale crops ; and this from the abuse of marle. Second marlings do not succeed, they think, but it has not been tried. Lime they use only on dry lands, and not often. They have the stone from Carlingford, and they burn it with coals ; it costs them 11d. a barrel, lay from 80 to 150 : the lighter the land the less they lay on it ; it lasts eight or nine crops ; does upon old marled lands better than a second marling. Sea shelly sand and gravel they have upon their own shore ; lay them thick on stiff reddish clay soils, and find great effect from them ; lay greater quantities much than of marle, about 800 one-horse loads, the best crops in the baroney are gained by it. Parts by shelling advanced, from 5s. to 25s. an acre. Very little grass land, and scarce any cattle but cows to every farm for convenience. The farmers are generally, not only in Lecale, but the whole county, much better and wealthier than formerly.

TITHES generally compounded 2s. 3d. an acre for all under crops. The price of provisions has risen in general one-third in 20 years. And a cow which, 40 years ago, was bought for 25s. is now 5l. 5s. and as good a horse; 25 years ago, for 4 to 5l. as now for 10l. to 12l.

THERE are some cottars who have not farms, only a potatoe garden, a patch of flax, grass for a cow, and a little straw for the winter, for all which they pay 2l. 2s. a year. Rise in the price of labour from 4d. and board to 5d. and 6½d. and ditto in 20 years. The fuel generally coals, which are 13s. to 18s. a ton, and they send their children to pick up dung to burn; yet this is the country that I have heard commended for husbandry. Building a mud farm-house 8l. Ditto stone and slate 30l.

THE linen manufacture is carried on very generally through the barony. In Downpatrick there are 500 webs sold every week, at 1s. 1d. a yard, and 26s. each, being from 800 to 1400, in general 1200 linen; which 1200 web will take 38 hanks of four-hank yarn, and a woman will on an average spin the 38 hanks in as many days, being paid 4d. a hank; a weaver will make it in a fortnight; and has 10s. for it.

UPON the marling coming in, there was a corn^d coasting trade opened from Strangford; and it flourished considerably, but fell off pretty much, as has been mentioned with respect to the deanery of Downe. The trade has, however, been upon the increase for about four years. From the 11th of september, 1775, to july the 1st, 1776, there were

were 100 cargoes of wheat and barley, about 50 tons each on an average, to Liverpool, Whitehaven, Lisbon, &c. and to Dublin. Two-thirds to Dublin, and one-third foreign, which export received the bounty. The export both foreign and coasting, in 1774, nearly the same as 1775. In 1773 about 75 cargoes: in 1772, 60 to 70. The trade in general of Strangford, export, import, ships and seamen, has been in general increasing for 10 years last past; but the year ending the 25th of last march higher than ever it was before, having every year been in a regular gradation. The decline of 1772 and 1773, in the linen manufacture, &c. not felt in the trade of this place.

To the port of Strangford, which includes Downpatrick, Dundrum, Killilea, Killoch, Portaferry, Comber, and Newtown, there belong 30 vessels, from 35 to 150 tons burthen, besides fishing vessels, of which 27 sail received the bounty in 1775: the same number in 1774, in 1772 twenty-three. The burthen of the vessels in 1775 from 28 to 75 tons, and the bounty about 700*l*. All up the channel, to Strangford and Killilea, and into the Loch, there is 30 feet water, and on the bar there is as much in the lowest springs. A ship of 100 guns might lie within 15 yards of the shore.

CALLED at Lord Bangor's at Castle Ward, to deliver a letter of recommendation, but unfortunately he was on a sailing party to England; walked through the woods, &c. The house was built by the present Lord. It is a very handsome edifice with two principal fronts, but not of the same architecture, one is gothic, and the other grecian.

Vol. I.

M

From

From the temple is a fine wooded scene; you look down on a glen of wood, with a winding hill quite covered with it, and which breaks the view of a large bay: over it, appears the peninsula of Strangford, which consists of inclosures and wood. To the right, the bay is bounded by a fine grove, which projects into it. A ship at anchor added much. The house well situated above several rising woods, the whole scene a fine one. I remarked in Lord Bangor's domains, a fine field of turnips; but *unboiled*. There were some cabbages also.

Took the road to Downpatrick, through a various country; Down Bay is on the left, and exhibits an amazing variety of islands, creeks, and bays, which appear among cultivated hills in a most picturesque manner. Here I saw sheep grazing in a ditch, confined by a line fastened by two pins, and drove into the ground, and passing through rings which hung from a strap round their necks, so that they could move only from one end to the other. To Redemon, the seat of Arthur Johnston, Esq; got there late in the evening, but being absent, I desired the servants to give me a bed, dreading being caught again at a village cabin.

JULY 31st, to Saintfield. Rents are 10s. 6d. an acre. Several bogs here; one in particular half cultivated, the rest unimproved; fine oats, potatoes, and barley, were on it. One piece of oats shoots directly into the uncultivated part, and shews plainly what might be done with all the bogs of this country. Reached Belfast in the forenoon, and was then fortunate enough to meet with Mr. Holmes, also a letter from Doctor Haliday, who being absent himself

himself recommended me to several other gentlemen. Gained upon the whole the information I wished; it consisted of the following particulars.

The imports of Belfast consist in rum, brandy, geneva, and wines. Till within these two years much grain; since that none, but have, on the contrary, exported some. Coals from Britain. Iron, timber, hemp, and ashes, from the Baltic. Barilla from Spain for the bleach greens. Tea, raw sugars, hops, and porter, the principal articles from Great Britain. From North America, wheat, staves, flour, and flax-seed, all which cut off at present. The exports are beef, butter, pork, to the West Indies, and France. The great article linen cloth to London; formerly some to America. The balance much in favour of the place. Derry, Newry, and Belfast, the linen export towns; two thirds from Belfast, a little from Derry, the rest from Newry. There are three sugar houses here. The number of ships belonging to Belfast about 50 sail from 20 to 300 tons. A vessel of 200 tons, half loaded, may come to the quay, there being 9 and a half to 10 feet water; larger vessels lay two miles and a half down. The trade of Belfast was at its height in 1770; 1771, 1772, and 1773, were the worst years; 1774, and 1775, it has been mending; but 1774 and 1775 not equal to 1770, and 1771, by one third. It is curious to see from hence how the trade of this place has vibrated with the linen manufacture, that being just the account I have received of the progress of that fabrick. Calculated that the trade of Belfast in general encreased one third in fifteen years, ending in 1770, or 1771. The number of people supposed to amount to from 12 to 15,000.

Belfast being the place from whence the emigrations were the greatest, I made inquiries concerning them, and found that they have for many years had a regular emigration of about 2000 annually, but in 1772 the decline of the linen manufacture encreased the number; and the same cause continuing in 1773, they were at the highest when 4000 went. In 1774 there were but few; and in 1775 there were none, nor any since. Some that went had property, and so had some of those that always went. In general they were the most idle and worthless, and not reckoned any loss to the country. In 1771 there were 300 looms in Belfast, but in 1774 there were only 180.

THERE is a considerable slaughter at this place. In 1775 cured 6000 barrels of beef, at 40s. a barrel, in the town; and 5,500 of pork at 50s. The principal part of the grazing land the lower part of Antrim from Ballymena towards Larne, and Ballymony; some from Meath and even from Sligo. The hogs from Ardmagh, Down, and Antrim, weigh, on an average two cwt. fattened mostly on potatoes; six or seven years ago they exported 500 barrels of pork. In 1775, 7000. In 1776, it will be 10,000. When oatmeal above 1d. or 1½d. a pound, the poor live entirely upon potatoes and milk; no meat; but herrings in the season. Price of provisions, &c. at Belfast are, potatoes 9d. a bushel, pigeons 6d. a couple, rabbits ditto, salmon 2d. a pound, lobsters 6d. plaice ¾d. per lb. oysters 1s. to 4s. per hundred, fresh cod 1d. per lb. barnacle 1s. widgeon 1s. a pair, oatmeal three farthings per lb. lime 1s. per barrel, coals 13s. a ton. Labour the year round 1s. 1d. in the town, 8d. in the country.

country. Seamen 30s. a month, and ship provisions. Spinners earn 2d. a day. Weavers 1s. 1d. they never go for labourers.

Gross custom including excise upon tobacco and foreign spirits.

Year	£.	Year	£.
1763	32,900	1764	35,700
1765	49,600	1766	53,600
1767	50,800	1768	56,200
1769	51,500	1770	63,600
1771	62,100	1772	58,700
1773	59,900	1774	60,100
1775	64,800		

In the year ending the 25th of march 1774, pieces of linen exported 147,218; yards 3,713,822.

	Pieces.
FROM 1st. of nov. 1771, to 1st. may, 1772	85,402
Next half year	91,712
	<hr/>
	177,114
	<hr/>
First half year	95,928
Second ditto	87,089
	<hr/>
Total	183,017
	<hr/>

BELFAST is a very well built town of brick, they having no stone quarry in the neighbourhood. The streets are broad and strait, and the inhabitants, amounting to about 15,000, make it appear lively and busy. The public buildings are not numerous or very striking; but over the exchange Lord Donnegal is building an assembly room 60 feet long, by 30 broad, and 24 high; a very elegant room. A card-room adjoining, 30 by 22, and 22 high; and a tea-room of the same size. His Lordship is also building a new church, which is one of the lightest and most pleasing I have any where seen: it is 74 by 54, and 30 high to the cornice; the isles separated by a double row of columns; nothing can be lighter or more pleasing. The town belongs entirely to his Lordship. Rent of it 2000l. a year. His estate extends from Drumbridge, near Lisburne, to Larne 20 miles in a right line, and is 10 broad. His royalties are great, containing the whole of Loch Neagh, which is, I suppose, the greatest of any subject in Europe. His eel fishery at Tome, and Port-New on the river Ban, lets for 500l. a year; and all the fisheries are his to the leap at Colrairie. The estate is supposed to be 31,000l. a year, the greatest at present in Ireland. Innishoen, in Donnegal, is his, and is 11,000l. of it. In Antrim, Lord Antrim's is the most extensive property, being four baronies, and 173,000 acres. The rent 8000l. a year, but re-let for 64,000l. a year, by tenants that have perpetuities, perhaps the cruelest instance in the world of carelessness for the interests of posterity. The present Lord's father granted those leases.

MR.

Mr. Portis of Belfast, last year sowed three acres two rood of flax; let it stand till quite ripe, then stacked it like corn, and threshed it in march; produce of seed eight hogheads, which sold at 4l. 4s. or 33l. 12s. He watered it then, and went through the whole operation as common. By being kept so long, he found it required less watering than in the common way. This is not the usual method of doing it.

M-4

Dr.

Dr.		Cr.	
£.	s. d.	£.	s. d.
3 acres 2 roods at 15s. per acre	2 12 6	By 8 hogheads of clear feed fold at	33 12 0
Ploughing with two horses, plough-	- - -	4l. 4s. per hoghead	- 22 8 0
man and boy, at 4s. 2d. per day,	- - -	By 896lb. clean flax fold at 6d. a lb.	- 22 8 0
4 days	0 16 8	Would have fold for 7d. if it had	
Harrowing and sowing, 5s. 4d. and	- - -	been judiciously managed, by suf-	
cleaning the furrows, 4s.	0 9 8	fering it to lay a day or two longer	
One hoghead of feed	4 0 0	in the water, which would have	
Reaping	1 6 0	made the flax finer.	
Stacking, thatching and bringing home	0 15 0		
Expences of watering, drying, taking	- - -		
to the mill, and cleaning, at 2d. per	- - -		
lb. 896lb. a large allowance	7 9 4		
	<hr/>		
	17 9 2		
	<hr/>		
	38 10 10		
	<hr/>		
	56 0 0		
	<hr/>		
Net profit			

Note,

Note, The ground was rather inclined to clay, was ploughed from lay, but received no manure for two years; ploughed about christmas, furrowed and sowed the latter end of march, but covered with a shovel from the furrows, from an inch to an inch and an half thick.

I was informed that Mr. Isaac, near Belfast, had 4 acres, Irish measure, of strong clay land not broken up for many years, which being amply manured with lime rubbish, and sea shells, and fallowed, was sown with wheat, and yielded 87l. 9s. at 9s. to 12s. per cwt. Also that Mr. Whitley, of Ballinderry, near Liffburne, a tenant of Lord Hertford's, has rarely any wheat that does not yield him 18l. an acre. The tillage of the neighbourhood for 10 miles round, is doubled in a few years. Shall export 1000 ton of corn this year from Belfast, most of it to the West-Indies, particularly oats.

AUGUST 1st, to Arthur Buntin's, Esq; near Belfast; the soil a stiff clay; lets at old rents 10s. new ones 18s. the town parks of that place 30s. to 70s. ten miles round it 10s. to 20s. average 13s. A great deal of flax sown, every countryman having a little, always on potatoe land, and one ploughing: they usually sow each family a bushel of seed. Those who have no land pay the farmers 20s. rent for the space a bushel of seed sows, and always on potatoe land. They plant many more potatoes than they eat to supply the market at Belfast; manure for them with all their dung, and some of them mix with dung earth and lime, and this is found to do better. There is much alabaster near the town, which is used for stucco plaister; sells from 1l. 1s. to 25s. a ton.

IN

In my way to Antrim, viewed the bleach-green of Mr. Thomas Sinclair; it is the completest I had seen here. I understood that the bleaching season lasts 9 months, and that watering on the grass was quite left off. Mr. Sinclair himself was not at home, or I should probably have gained some intelligence that might have been useful.

Crossed the mountains by the new road to Antrim, and found them to the summits to consist of exceeding good loam, and such as would improve into good meadow. It is all thrown to the little adjoining farms, with very little or any rent paid for it. They make no other use of it than turning their cows on. Pity they do not improve; a work more profitable than any they could undertake. All the way to Antrim lands let at an average at 8s. The linen manufacture spreads over the whole country, consequently the farms are very small, being nothing but patches for the convenience of weavers.

From Antrim to Shaen's Castle the road runs at the end of Loch Neagh, commanding a noble view of it; of such an extent that the eye can see no land over it. It appears like a perfect sea, and the shore is broken sand banks, which look so much like it, that one can hardly believe the water to be fresh. Upon my arrival at the Castle, I was most agreeably saluted with four men hoeing a field of turnips round it, as a preparation for grass. These were the first turnip hoers I have seen in Ireland, and I was more pleased than if I had seen four emperors.

The Castle is beautifully situated on the Lake, the windows commanding a very noble view of it; and

and this has the finer effect, as the woods are considerable, and form a fine accompaniment to this noble inland sea. Mr. O'Neil not only received me with the most flattering politeness, but was extremely assiduous for my correct information. He is a very considerable farmer, has sown turnips 3 years, never less than 11 acres, and has fattened oxen and cows, kept milch ones on them, and has found them exceedingly useful. The beasts thrive perfectly well, and he is well convinced that nothing can be more beneficial; by their means he has carried on his fat bullocks from autumn, when they would sell for 8l. 10s. being 50s profit on 6l. the purchase price; but from turnips, he sells at 11l. 11s. to 14l. A clearer testimony cannot be given. The cabbages were applied to the same use when the turnips were gone.

Mr. O'Neil plants his potatoes in the furrows the plough forms as it stirs the land, by which a very great saving is made in labour, and the crops better than common. Among his woods he has a great deal of fern, (*pteris aquilina*) all regularly cut and stacked for littering the farm horses, by which means he raises great quantities of manure. None of the farmers use oxen in ploughing, nor any of the gentlemen, except Mr. O'Neil and Mr. Lesley. Mr. O'Neil introduced the custom, and has found it uncommonly beneficial. Has manured 13 acres of clay land with gravel from the lake shore, 1700 car loads, each 3 barrells per acre. It is not lime-stone gravel, but small pebbly, without any earth among it. It was laid on in 1775, the year of fallow, and now is under wheat, the best crop acknowledged that ever was seen upon the land. He has many one-horse carts,

carts, which carry 6 barrels, and the common car carries only 3. As I wanted to know the weight of a common Irish car, Mr. O'Neil ordered one to be weighed; it was 2cwt. 2qrs. 14lb. One of his carts weighed at the same time 4cwt. 2qrs. 21lb. Much hollow draining done at Shaen's Castle, cut three feet and a half deep, and filled with whitethorn bushes; the soil strong loam with stones on clay; the effect very considerable; the land made dry, which before draining was perfectly poaching. Of this great improvement he has done 77 acres. The soil in this neighbourhood is in general what is here called stiff clay, that is, as I found, a strong stoney loam on a yellow clay. Some bog, and a little sandy skirt on the shore of the lake. Bog is so scattered, that none of Mr. O'Neil's tenants are farther than half a mile from it. Rents rise from 6s. to 10s. average 8s. Farms, as in all the linen countries, are generally very small; they rise from 5 acres to 100, but in general they are from 5 to 30. Scarce any of them but are weavers, or the employers of weavers; but they have such a custom of splitting their farms among their children, that one of 6 acres will be divided. Mr. O'Neil has found this to be a source of the greatest misery and inconvenience, for the portions are so small that they cannot live on them; the least accident, such as the death of a cow, &c. reduces them to want, so that neither rent nor any common demand can be paid. They are likewise obliged, in order to make their little patch come near to their support, to crop it every year with oats, till the land is become almost a caput mortuum; and they are reduced to great distress with paying a very low rent. This is also found in their circumstances; rents, much under the value, are got from them with great difficulty, depending

depending entirely on their web, and by means of their husbandry are sometimes disappointed even by that. They are by no means in good circumstances, but much distressed by every demand. In respect to living, their diet is milk, potatoes, and oat bread; very little butter, as they sell what they make. Not less than a 20 aced farmer has a side of salted beef in a winter. Many of them nothing but potatoes and milk, some only water. There is no such thing in common as a labourer unconnected with the manufacture. Every cabin has a dog regularly. There is a custom here called *rundale*, which is a division of their farms into spaces by balks, without fences, which they take here and there exactly like the common fields of England. It is a most pernicious custom, which gives to all these farms the mischiefs of our open field system in England. I believe it prevails down in Wexford, &c. where I mentioned farms in partnership without sufficiently explaining this circumstance. The rent of the county in general is 100,000l. a year, and there are not 400,000 acres, or 5s. 6d. an acre. Land sells at 21 years purchase. The courses — 1. Potatoes. 2. Oats; the produce 40 bushels. 3. Oats, 30 bushels. 4. Oats, 25 bushels. 5. Left for weeds and rubbish 2 years.

1. Potatoes. 2. Flax. 3. Oats. 4. Oats. 5. Lay out to weeds.

No clover, turnips, &c. Also, 1. Potatoes. 2. Wheat, 4 to 8 barrels. 3. Oats. 4. Oats. Potatoes are all put in the trenching way; all their dung used for them, except now and then a little for barley. They plant 30 to 40 bushels of seed per acre.

174 SHAEN'S CASTLE.

acre. Weed them by hand, and get on an average about 300 or 400 bushels. A family consisting of a man, his wife, and four children, will eat three bushels of potatoes, and 20 lb. weight of oatmeal a week. No natural manure of any kind used, nor lime. Some few will burn the surface of the bogs to ashes, and carry them to their lands for oats, on clay, and the effect is found to be considerable. Tythes are paid per acre 2s. for oats, potatoes and flax nothing. County cess 2d. an acre. No tea drank in the country, or at least very little. The leases are three lives, or 31 years. No men who hire large tracts in order to relet again, but plenty of them under Lord Antrim, even to 2 or 3000l. a year a man. The increase of the people is very great, extravagantly so; and is felt severely by emigration being stopped at present. Meat $\frac{1}{2}$ to 1d. rise in 20 years. A poor man's firing is six days labour cutting, which with all expence, will be 1l. 10s. at a mile distance, or 90 kish of turf. For flax they plough their potatoe land once.

After heckling, each stone will have 5 lb. flax and three of tow.

		£.	s.	d.
5 lb. at 1s. 2d.	- - -	0	5	10
3 lb. at 8d.	- - -	0	2	0
		<hr/>		
The stone price to sell	-	0	7	10
		<hr/>		

THE flax is spun from four to eight hanks to the pound. Some very curious will spin it to 10 and 12, average 6, or 30 to the 5 lb. which will sell from 3s. to 3s. 6d. the spangle of 4 hanks, or 10d. a hank. Women are generally hired to spin, at from 16s. to 30s. the

the half year and board, and engage to spin for 30s. six hanks a week. The 3lb. of tow will make nine hanks of 3 hanks per lb. of which they make linen for labourers shirts, &c. and sells for 1s. 1d. to 1s. 2d. per yard white. The six hank yarn will spin into a 1600 web; they make from 14 to 20 hundred, 63 hanks of six hank yarn will make a web of 1600 cloth. The weaver is paid 7d. a yard; he will do two yards a day, including dressing, &c. and the piece will sell in the monthly market of Randalstown for 1s. 11d. to 2s. a yard green.

THE hearts of steel lasted three years; began in 1770 against rents and tythes, and from that went to all sorts of grievances. All was night work, with many fire arms. It was in reality owing to the impudence and levelling spirit of the dissenters. The roman catholics were the most quiet. Tythes, however, were a real grievance; the proctors let the first, and perhaps the second year with them run by bond, and they oppressed them by holding the bond over their heads. These tythe farmers are a bad set of people. In the emigrations of 1772 and 1773, many farmers took with them from 30l. to 300l. Near Brochaine, a lodge of Mr. O'Niel's, 10 miles distant, there are some large grazing farms; a few that fatten 2 or 300 bullocks, but in general on poor hilly land at 3s. to 6s. an acre. The bullocks are 4 cwt. buy in at 4l. and sell out from 5l. to 6l.

AUGUST 3d, passing Randalstown, had a constant view of Slamish, a remarkable mountain rising from a range of other mountains. Slamish in Irish is *the mountain*, by way of pre-eminence; under it in the vale, is a bog of great length; and between Aghoghilf and

and Ratharkin another very improveable. Between Ratharkin and Ballymony to the left, a vast one many miles in length, chiefly improveable. To Lesly-hill, where I found Mr. Lesly, a warm admirer of husbandry, and practising it on a scale not often met with. I have no where met with any person more inclined, or better able to inform me minutely on every object. He has made considerable improvements of bog; very near his house was one of 20 feet deep, which he has entirely reclaimed. His operation was cutting a main drain eight feet wide, five deep, and four wide at bottom, at 9d. a perch; then it was levelled by digging at 8d. a square perch; part of it covered with dung, 320 cars an acre, each 3 cwt. and planted with potatoes. The crop 320 bushels per acre, and then levelled the trenches and sowed 20 bushels of hay seeds per acre. The other part marled, 160 cars, 10 bushels each per acre, and grasses sown at once. The potatoe part much the finest. In another part of the bog, he improved it by cutting drains six perch asunder, four feet wide, and three deep, at 4d. a perch; has improved some bog by first draining, then liming on the surface, 160 barrels per acre; ploughing three times, and sowing wheat in the trenching way. The crop 8 to 10 barrels an acre. On a heathy bog, 12 feet deep, drained, then limed, and formed beds six feet broad, with trenches of two; and in the spring sowed oats covered out of the same furrows with spades; the oats indifferent. Is now digging another bog, and burning it. In general would recommend in this improvement to cut the main drains eight feet wide, and five deep, which must be made wherever the fall is; if only one fall, one drain will do. Then at six perch asunder, cut cross drains, four feet wide, and three deep;

deep; this draining will make it in a year dry enough for cars; carry 160 loads an acre of dung, each 5 cwt. If not dung then marle, and on the manuring, trench in potatoes in the common way. If neither dung nor marle, then clay, and dig it in; sow hay-seeds, and roll well. After the potatoes dig or plough, and level, and sow oats. The crop 40 bushels, and with the oats the hay seeds. Is clear that this system will improve any bog.

MR. Lesly's course of crops on stiff clay is,—
1. Fallow and lime. 2. Wheat. 3. Barley. 4. Oats. 5. Oats. 6. Clover for two years, plough in the second crop the second year. After two ploughings, he harrows and limes, 160 barrels per Cunningham acre; after the lime is well slacked, a slight harrowing to mix it. Before sowing a very shallow ploughing, and a slight harrowing to level. Then line out the lands eight feet, and furrows 18 inches wide; sow the land, and cover the seed with the trenches, cut one foot deep, to cover one inch deep. By this means gets immense crops. Expences and produce,

1. and 2. Fallow and Wheat.		£. s. d.
Expences	15	5 6
Produce, 12 barrels, at 11. 2s. and straw 11. 14	4	0
Loss	1	1 6

3. Barley.

	<i>£.</i>	<i>s.</i>	<i>d.</i>
Produce, eight bolls, at 25s. and straw 10s.	10	10	0
Expences	-	-	3 15 3
Profit	-	-	6 14 9

4. Oats.

Produce, 10 bolls, and straw 11.	-	11	0 0
Expences	-	-	3 9 6
Profit	-	-	7 10 6

5. Oats.

Produce	-	-	9 0 0
Expences	-	-	3 7 6
Profit	-	-	5 12 6

6. Clover.

Expences	-	-	2 3 0
Soiling two men, a horse and car, at 3s. 2d.			
a day, 19s. a week, will feed 20 cows,			
fay 1s. a cow; begin 1st of june, and			
finish middle of october, 18 weeks, 18s.			
a cow; an acre feeds eight cows,			
which is	-	-	7 4 0

 9 7 0

Produce,

LESLY HILL 179

		£	s.	d.
Produce, value of the summer-grass at 2l. 2s.				
the common pay is 1l. 11s. 6d. in pastures	16	16	0	
Expences	-	-	9	7 6
Profit	-	-	7	8 6

7. Clover.

Rent, &c.	-	-	1	3 0
Soiling six cows, at 18s.	-	-	5	8 0
			6	11 0
Produce, six cows, at 2l. 2s.	-	-	12	12 0
Expences	-	-	6	11 0
Profit	-	-	6	1 0
Profit, barley	-	-	6	14 9
oats	-	-	7	10 6
ditto	-	-	5	12 6
clover	-	-	7	9 0
ditto	-	-	6	1 0
Lost by wheat	-	-	33	7 9
			1	1 0
			32	6 9
Average profit	-	-	5	7 9

Twelve acres of clay land he limed 160 barrels an
acre on the grass a year before he ploughed it, then
N 2 summer

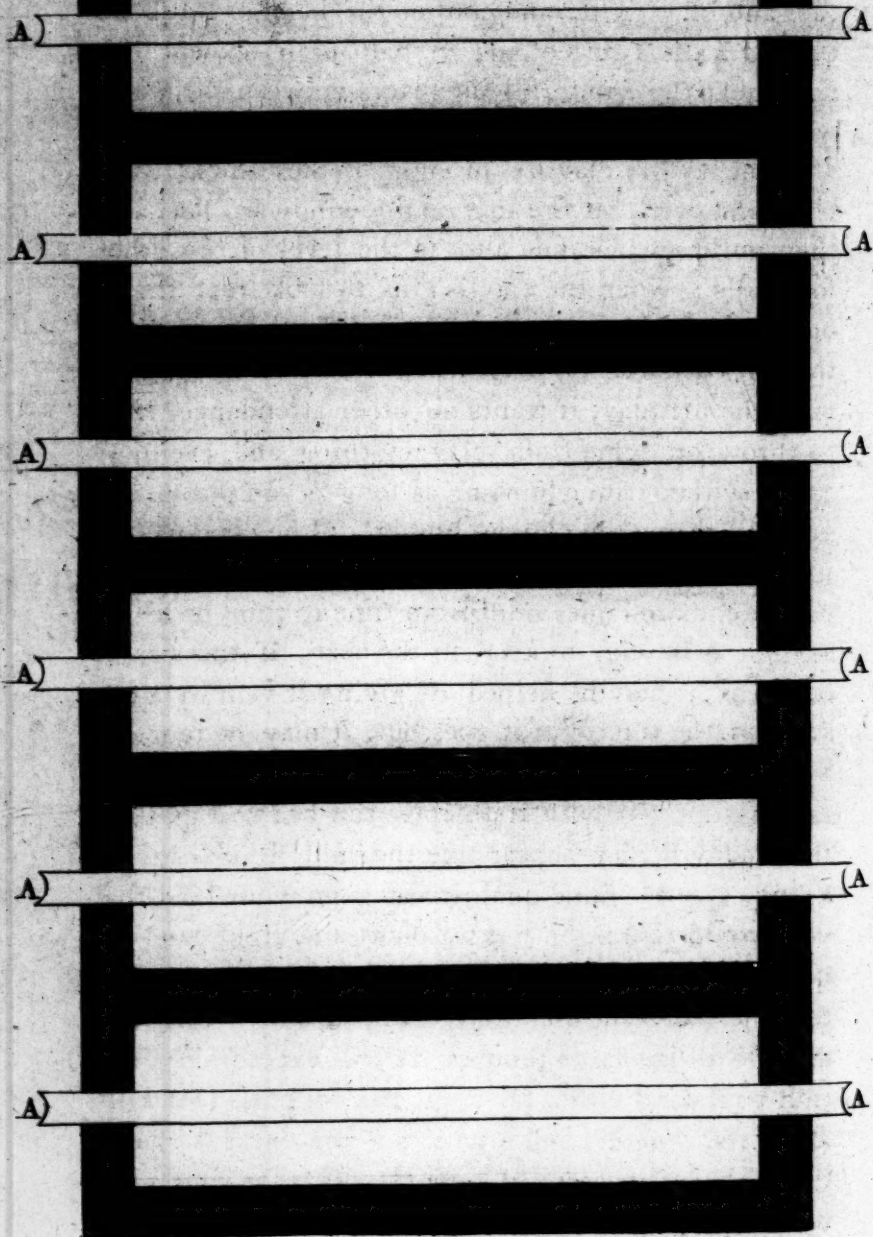
summer fallowed it, and sowed $1\frac{1}{2}$ bushel of seed wheat, and reaped 12 barrels an acre.

I SHOULD remark, that Mr. Leslie's crops of wheat were the finest I had seen in Ireland, nor do I remember finer in England. He has burned great quantities of marle and clay, (the latter upon the surface of the marle pit) into ashes, and I saw two immense heaps burned in so complete a manner, that I have not a doubt but the mode in which it is performed is perfect. One contained 7,308 solid feet, or 274 cubical yards; the other 6,534 feet, or 242 yards: in all 13,842 feet, or 516 yards, 10 feet. The expence of the whole came to 21l. 19s. 4d. It took 64 kishes of turf at beginning, but afterwards burnt itself. In the progress of the heaps, spread bog earth on some of the layers, to make it burn quicker, but it will do without. The following paper contains the directions by which Mr. Lesly performed the work.

A C L A Y K I L N.

“ THE kiln (*Plate II.*) is 20 feet by 12, but it may be made longer or shorter, according to the quantity you want; it may also be of any breadth that will allow men from each side to throw clay to the middle. A. A. are the air-pipes in the middle between the sod walls made, either by cutting a little trench in the ground six inches deep, and so many broad, covering them with flat stones, slates or bricks, or by stones laid on the ground at the same distance, and covered in the above manner; the use of these being to give air to the fire, and make it burn better. The end must be brought a foot on each side without the sod walls, and carefully kept from being choaked up with the

Tol. 1. p. 180.



A Clay Kiln.

the ashes or rubbish. B. B. are the sod walls, about 10 or 12 inches thick; they must be three feet distance from each other; the use of them is to keep fuel and clay tight, and confine the heat. Raise all the sod walls two feet and an half high, except the sides next the wind, fill the spaces between the walls with turf, furze, wood, or any manner of firing, and thereon lay dry clay six or eight inches thick, very close and even, set fire to it on the windward side, and then build up that side also to the level of the other sod walls; when the clay begins to look red, throw on more by degrees; the greatest difficulty is to get the first clay well on fire, when that is accomplished after the first day, it wants no other attendance than to throw on some fresh clay morning and evening, and it will continue burning as long as you please, till you can throw the clay no higher. The clay may be used just as it is dug out of the pit. The sod walls on the ends and sides must from time to time be raised as high as the clay to keep in the heat; if the fire be too weak, it may be helped by giving it vent by a poker from the top, or if it goes out, it may be renewed by putting in some fresh fuel and clay. When you fail to supply it with fresh clay, the fire will go out; the clay will then appear like the rubbish of a brick-kiln. Lay the same quantity of it on your land that you would of dung; but as poor and light land requires more than strong ground, experience must determine the exact quantity. The frost and rain will dissolve all the large lumps. It will exceedingly enrich your land either for corn, flax, or grass; it kills all sprats, (*juncus*) and produces a fine sweet herbage, that lasts many years. Chuse the place for your kiln, where the clay is thick and most convenient for carriage to your fields that want manure; it will be well

worth your pains to burn any clay or earth in this manner (sand and gravel only excepted); it is a very cheap manure, and hardly inferior to the marle, shells, lime, sand or sea weed, that have enriched all the farmers of this kingdom, who have had sense and industry enough to make use of them. The best kiln 16 feet wide.

MR. LESLY practised the drill husbandry several years, in consequence of the recommendations of Mr. Wynn Baker. He bought of him a complete set of tools for the purpose, drill-plough, horse-hoes, &c. and spared neither attention or expence to give it a fair trial, but found that it would not answer at all, and then gave it up. Lucerne by transplantation he also tried, following Mr. Baker's instructions exactly; but that did no better than the other, and he ploughed it up.

IN cattle, Mr. Lesly has been equally attentive; he procured one of Mr. Bakewell's bulls two years ago, and has bred many calves by him, but they are not yet of an age to judge of the merit of the breed: the bull is a very fine one. In draining he has made considerable exertions, principally by hollow ones. His granary is one of the best contrived I have seen in Ireland; it is raised over the threshing floor of his barn, and the floor of it is a hair-cloth for the air to pass through the heap, which is a good contrivance. The whole building is well executed and very convenient, and contains two large bullock sheds.

THE common husbandry around Lesly Hill is like that of the rest of the manufacturing part of Ireland.

The

The country is in very small divisions, of from 5 to 30 acres, and the rent upon an average 12s. Rent of the whole country not 5s. Londonderry not so much.

1. POTATOES. 2. Flax. 3. Oats. 4. Oats.
5. Weeds for two years, called a lay.

1. POTATOES. 2. Barley. 3. Oats. 4. Oats.
5. Weeds for two years.

An acre of potatoes.

	£.	s.	d.
Rent	-	-	0 12 0
Three bolls seed, 30s.	-	-	1 10 0
Dung, 160 loads, at 3d.	-	-	2 0 0
Spreading, planting, and trenching	-	-	1 5 0
No weeding because lay ground.	-	-	-
Taking up, &c.	-	-	2 0 0
			<hr/>
			7 7 0

Produce.

320 bushels at 1s.	-	-	16 0 0
Expences	-	-	7 7 0
			<hr/>
Profit	-	-	8 13 0

Prime cost 5½d. per bushel.

A man, his wife and 4 children, will eat 4 bushels a week. If they live upon oatmeal, they will eat
N 4 40lb.

40lb. or 2 bushels of oats. Average price of oatmeal 2s. 2d. a score pounds. Of barley sow 3 bushels and get 70. Of oats they sow 7 bushels and get 40 the first crop, and 30 the second, and if they run a third crop, not more than 20. A little lime used.

The stone of flax will, after heckling, be 5lb. and 3lb. of tow.

The flax is generally sown on their own land, and in that case only the common rent to be reckoned. The 5lb. of flax will spin into 9 hank yarn 45 hanks, and a woman will spin 4 a week, the price for spinning 6d. a hank. If they are hired, they are paid 3l. a year and board. Of these 9 hank yarn, the cloth made takes 50 hanks to a web of 25 yards, but they make double webs of twice that length: of 7 hank yarn a web of 48 yards, 32 inch wide, will take 88 hanks; a man weaves it in 15 days, is paid 25s. and sells it for 3s. a yard green. The tow is spun into 2 hank yarn, and wove into coarse cloth,

THE food of the poor people is potatoes, oatmeal and milk. They generally keep cows; some of them will have a quarter or a side of beef in winter, but not all. Upon the whole, they are in general much better off than they were 20 years ago, and dress remarkably well. The manufacture is at present very flourishing. When the price of cloth is low or bad, numbers of weavers turn labourers. The emigrations were considerable in 1772 and 1773, and carried off a good deal of money, but it was chiefly of dissolute and idle people: they were not missed at all. There is some land yet in the rundale way, but 20 years

years ago much more; also changedale, which is every man changing his land every year.

RENTS have fallen in 4 years 3s. an acre, and are but just beginning to get up again. Land sells at 21 years purchase. Labour has risen in 20 years from 5d. to 9d. No rise in the price of provisions in 20 years, or very little. The religion ten to one presbyterians.

AUGUST 4th, accompanied Mr. Lesly to his brother's at ———, within 3 miles of the Giant's Causeway, where I had the pleasure of learning several particulars concerning the country upon the coast. They measure by the Cunningham-acre, and rents are on an average 12s. Along the coast there is a tract of clay at from 14s. to 20s. The courses of crops:

1. Potatoes. 2. Barley. 3. Oats. 4. Oats.

1. Potatoes. 2. Barley. 3. Flax. 4. Oats.
5. Oats, and then lay out for 2 years.

MUCH of the country is in the rundale and likewise in the changedale system. The little farmers are all weavers, who weave 10 or 1200 linen, and spin great quantities of yarn for the Derry market. Oatmeal and potatoes are the general food of the lower people, who reckon that one barrel of potatoes, to live on, is equal to 2 bushels of meal. One barrel will last a family of six eight days, and costs on an average 3s. 6d. or 4s. Oatmeal 1s. 2d. to 3s. 6d. the 20lb. but 1½d. per lb. on an average. One bushel

busnel of oats yields 18lb. of meal. The oats are dried at home with turf on kilns, which cost from 3l. to 5l. they are then sent to a mill to be shelled, in which operation they lose half; after which they are ground; the landlord appoints the mill; and they pay 2d. for it.

THE average crop of potatoes is 300 bushels on the Cunningham acre, which is 259 to the English. The account they state thus:

	£.	s.	d.
Rent	-	0	15 0
County cess	-	0	0 6
Seed, 30 bushels, at 1s.	-	1	10 0
300 load of dung, at 2d.	-	2	10 0
Putting in 40 men a day, at 6d.	-	1	0 0
Weeding	-	0	10 0
Digging, &c. &c.	-	2	0 0
		<hr/>	<hr/>
		8	5 6

Produce.

	£.	s.	d.
300 bushels, at 1s.	-	15	0 0
Expences,	-	8	5 6
		<hr/>	<hr/>
Profit	-	6	14 6
		<hr/>	<hr/>
Prime cost, per bushel, 6½d.			

THEY are, however, sometimes so low that, instead of profit, the account is a losing one; last year they were 4d. a bushel, and in Coleraine 3d. Oats are
now

GIANT'S CAUSEWAY. 187

now 18. a bushel; several thousand bushels have been exported from Coleraine to London at that price.

THERE is a considerable salmon fishery on the coast; the fish are cured in puncheons with common salt, and then in tierces of 42 gallons each; 5 of which make a ton; and it sells at present at 17l. a ton, but never before more than 16l. average for 10 years 14l. This rise of price is attributed to the American supply of the Mediterranean with fish being cut off.

RODE from Mr. Lesly's to view the Giant's Causeway. It is certainly a very great curiosity, as an object for speculation, upon the manner of its formation; whether it owes its origin to fire, and is a species of lava, or to chrysalization, or to whatever cause, is a point that has employed the attention of men much more able to decide upon it than I am; and has been so often treated, that nothing I can say would be new. When two bits of these bay-saltes are rubbed together quickly, they emit a considerable scent like burnt leather. The scenery of the causeway, nor of the adjacent mountains, is very magnificent, though the cliffs are bold; but for a considerable distance there is a strong disposition in the rocks to run into pentagonal cylinders, and even at Bridge, by Mr. Lesly's, is a rock in which the same disposition is plainly visible. I believe the causeway would have struck me more if I had not seen the prints of Staffa.

RETURNED to Lesly-hill; and august 5th departed for Coleraine. There the Right Hon. Mr. Jackson assisted me with the greatest politeness in procuring the

the intelligence I wish'd about the salmon fishery, which is the greatest in the kingdom, and viewed both fisheries above and below the town, very pleasantly situated on the river Ban. The salmon spawn in all the rivers that run into the Ban about the beginning of august, and as soon as they have done, swim to the sea, where they stay till january, when they begin to return to the fresh water, and continue doing it till august, in which voyage they are taken; the nets are set the middle of january, but by act of parliament no nets nor weirs can be kept down after the 12th of august. All the fisheries on the river Ban let at 6000l. a year. From the sea to the rock above Coleraine, where the weirs are built, belongs to the London companies; the greatest part of the rest to Lord Donnegal. The eel fisheries let at 1000l. a year, and the salmon fisheries at Coleraine, 1000l. The eels make periodical voyages, as the salmon, but instead of spawning in the fresh water, they go to the sea to spawn, and the young fry return against the stream; to enable them to do which with greater ease at the leap, straw ropes are hung in the water for them; when they return to sea they are taken: many of them weigh 9 or 10lb. The young salmon are called *grawls*, and grow at a rate which I should suppose scarce any fish commonly known equals; for within the year some of them will grow to 16 or 18lb. but in general 10 or 12lb. such as escape the first year's fishery are *salmon*; and at two years old will generally weigh 20 to 25lb. This year's fishery has proved the greatest that ever was known, and they had the largest hawl, taking 1452 salmon at one drag of one net. In the year 1758, they had 882, which was the next greatest hawl. I had the pleasure of seeing 370 drawn in at once. They have this year
taken

NEWTOWN LIMMAVADDY. 189

taken 400 ton of fish ; 200 sold fresh at 1d. and 1½d. a lb. and 200 salted, at 18l. and 20l. per ton, which are sent to London, Spain, and Italy. The fishery employs 80 men, and the expences in general calculated to equal the rent.

THE linen manufacture is very general about Coleraine, coarse ten hundred linen. It is carried to Dublin in cars 110 miles, at 5s. per cwt. in summer, and 7s. 6d. in winter.

RENTS in Derry 10s. 6d. the Irish acre ; and farms from 6 to 15 acres. The emigrations from this neighbourhood were in general of idle, loose, disorderly people. It is at present too populous ; and if the emigrations are not renewed, the ill effects will be severely felt. The whole county of Derry belongs to the London companies and the Bishop, except some trifling properties. There is a little trade at Coleraine in hides, butter and fish, and some meal is imported, which sounds strange after hearing that so many oats had been exported.

MR. JACKSON has made great improvements to his house, which is situated in a very pretty domain of 85 acres on the banks of the river, and all the timber he has used is out of his bog ; he gets very large oak and fir trees : they are found 20 feet deep, and all lie exactly east and west.

AUGUST 6th, to Newtown-Limmavaddy ; went by Magilligan, for the sake of seeing the new house building on the sea coast, by the bishop of Derry, which will be a large and convenient edifice, the shell

not

190 NEWTOWN LIMMAVADDY.

not finished; it stands on a bold shore, but in a country where a tree is a rarity.

At Magilligan is a rabbit warren, which yields on an average 3000 dozen per annum, last year 4000, and 5000 have been known. The bodies are sold at 2d. a couple; but the skins are sent to Dublin at 5s. 7d. to 6s. a dozen, selling from 1500l. to 1800l. a year. The warren is a sandy tract on the shore, and belongs to the bishop. I was informed, that at Hornhead in Donnegal, Mr. Stewart has a warren of sand 25 miles long. Mr. Smith, of Newtown-Limnavaddy gave me the following particulars of that neighbourhood. Farms rise so high as 60 to 70 acres, and a few to 200, in general about 40 acres; many weavers patches at 3 or 4, but the farmers themselves have yarn spun in their houses, which they give to the weavers to make into cloth: the farmer himself attending to nothing but the management of his land. This appears to me a sign that I shall soon quit the linen country; for these are more of farmers than any set I have met with for some time. Rents for a few miles about the town, not including the town parks nor mountain, are at 5s. the parks 30s. the mountains are in great quantities, more than of cultivated land; and all they do is to raise some young cattle and feed some sheep. The 5s. are old rents, but new are 10s. which is the general average, Cunningham measure: of the whole county on an average not more than 4s. including bog and mountain.

1. Potatoes, value on an average 10l.
2. Barley, 3 bolls, at 12 bushels.
3. Oats, worth 50s.
4. Oats.
5. Flax.
6. Lay 2 or 3 years, some sow grasses, clover, &c.
7. Oats.
8. Oats. Manures are shells from the

NEWTOWN LIMMAVADDY. 191

the Loch shore and lime; lay 60 barrels of shells per acre, at 1s. a barrel on the land, will last from 5 to 7 years; the effect very great. Prefer it to lime for light land; but for deep clay ground lime best: of which 100 barrels, at 1s. More shells used than lime. Mountains beginning to be improved; they pay up to 1s. 6d. an acre; lime at 120 barrels an acre; sow oats in succession, as long as the land will bear them, get pretty good crops, but late: the soil is very wet, but they drain it with ditches.

THE linen manufacture is from 10 hundred to 16. They raise their own flax; the crops 28 stone per acre; after scutching worth 5s. 4d. a stone. The yarn from 2 to 10 hanks a lb. generally 4; spin a hank a day: are hired for it at 3l. 3s. a year; if done in the cabin, are paid from 4d. to 4½d. a hank. The poor live on potatoes, milk, and oatmeal, with many herrings and salmon; very little fish. In 10 or 15 years, their circumstances are improved; they live and dress better, and have better cabins.

THE emigrations were very great from hence of both idle and industrious, and carried large sums with them. Not too populous at present. The weavers have a great spirit of dividing their farms, however small, from which many inconveniencies arise; the farmers will do the same with their farms. Rents have fallen, in 5 years, 3s. 6d. in the pound, and are still rather upon the decline. The manufacture flourishes most when oatmeal is not lower than 1d. a lb. A bushel of potatoes is reckoned equal to 20lb. of oatmeal.

FROM

FROM Linnavaddy to Derry there is very little uncultivated land. Within four miles of the latter rents are from 12s. to 20s. mountains paid for but in the gross. Reached Derry at night, and waited two hours in the dark before the ferry-boat came over for me.

AUGUST 7th, in the morning went to the Bishop's palace to leave my letters of recommendation; for I was informed of my misfortune in his being out of the kingdom. He was upon a voyage to Staffa, and had sent home some of the stones of which it consists; they appeared perfectly to resemble in shape, colour, and smell, those of the Giant's Causeway. I felt at once the extent of my loss in the absence of his lordship, who I had been repeatedly told was one of the men in all Ireland the most able to give me a variety of useful information, with at the same time the most liberal spirit of communication.

WAITED on Mr. Robert Alexander, one of the principal merchants of Derry, who very obligingly took every means of procuring me such information as I wanted; rode with me to Loch Swilly for viewing the scene of the herring fishery, and, assisted by the Rev. Mr. Barnard, gave me the following particulars concerning it.

IN the barony of Innishoen, the courses are,
1. Barley eight barrells; 2. oats 10; 3. oats 6; 4. lay for three years.

1. OATS. 2. Oats. 3. Oats. 4. Lay three years.

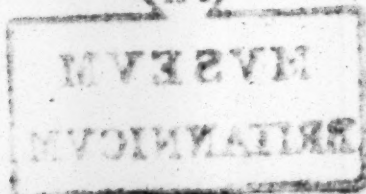
1. Potatoes.

1. Potatoes on lay. 2. Barley. 3. Oats 10 barrels. 4. Oats 6. 3. Oats 5. 6. Lay three years.

1. Potatoes 10l. 2. Barley. 3. Oats. 4. Oats. 5. Flax, 4 cwt.

BARLEY the principal crop, and generally worth 5l. to 6l. Rent of the whole peninsula to Lord Donnegal 11,000l. and to the occupying tenant 22,000l. The measure is the plantation acre; the bottoms of Innishoen 20s. an acre; the whole county of Donnegal not 1s. The linen is getting in but very slowly, but spinning very general, and the best yarn in all the north: they spin all their own flax, and generally into three hank yarn; which all goes to Derry, and from thence to Manchester. The spinners spin a hank a day: a pound of flax worth 6d. spins into three hanks, which sell at present at 1s. 9d. which is 5d. a day earning, but in common only 4d. Flax yields per acre scutched $3\frac{1}{2}$ cwt. at 6d. per lb. sells on foot at 6l. to 8l. expences per acre, scutching included, 5l. 14s.

THE isle of Inch belongs to Lord Donnegal; 300l. rent, and 6000l. fine, and the occupying tenants pay 1100l. a year, there are 2000 acres. The size of farms in Innishoen are from 10 to 20 acres, with a run on the mountains for cattle. They have lime stone in many parts of the country, shells in great plenty in the lochs, which sell at 3d. a barrel for burning into lime; other rotten shells in whole banks for manure, which they use much, laying 40 barrels per acre. The soil a stony gravel mixed with clay, with springs: the effect of the shells not great, except upon mountain land drained, where they throw



up white clover. There is a fall in the rent of lands in four or five years. Religion generally roman catholic. Sea weed much used for potatoes; and excellent for garden cabbages.

Rowed from Fawn to Inch island across the loch, the scenery amazingly fine, the lands every where high and bold, with one of the noblest outlines any where to be seen. Inch is a prodigiously fine extensive island, all high lands, with cultivation spreading over it, little clusters of cabbins, with groups of wood: the water of a great depth; and a safe harbour for any number of ships: here is the great resort of vessels for the herring fishery; it begins the middle of october, and ends about christmas; it has been five years rising to what it is at present; last year 500 boats were employed in it: the farmers and coast inhabitants build and send them out, and either fish on their own account, or let them; but the latter most common. Five men take a boat, each man half a share, each net half and the boat a whole one. A boat costs 10l. on an average, each has six stand of nets at 2l. In a middling year each boat will take 6000 herrings a night, during the season, six times a week, the price on an average 4s. 2d. a 1000 from the water, home consumption takes the most, and the shipping which lies here for the purpose the rest.

The ships on the station for buying are from 20 to 100 tons, and have the bounty of 20s. a ton.

By the act they are to be built since the year 1766, each has one or two boats for fishing; also for the first 20 tons they must have eight men, and two to every

eight



eight ton above 20. The merchants who have the ships, both buy of the country boats and fish themselves; they both cure for barrel and in bulk that is salted in the hold of a ship; a ton of salt will cure 10,000 herrings; 500 herrings in a barrel of those of Loch-swilly, but 800 at Killybegs. They made their own barrels of American staves, but now of fir; 1000 staves, Philadelphia, will make 8 ton or 64 barrels, and the price 6l. the 1000, making 11d. each barrel, 20 hoops to the barrel, at 6d.

	£.	s.	d.
500 boats, last year, at five men	2500	0	0
Men on shore salting	300	0	0

In gutting, a little boy, 10 or 12 years old, at a halfpenny a 100, will earn 10d. a day

60 ships, at 10 men	600	0	0
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Twine of a 40s. stand of nets 20s. therefore 20s. for labour; 27lb. of flax, spun into 16 or 18lb. of twine, make a stand.

Mr. Alexander began the fishery in 1773, when he employed two sloops only, each of 40 tons. In 1774, he employed the two sloops and a brig of 100 tons, the latter of which he sent to Antigua with 650 barrels, besides what he sold at home, and loaded the sloops in bulk for the coast trade. In 1775, he had the same brig and three sloops, and loaded all four in bulk for the coast trade; one of which on her voyage was put ashore at Black Sod, in the county of Mayo; and though the sloop was not the least injured, the country came down, obliged the crew to go on shore, threatening to murder them if they did not,

and then not only robbed the vessel of her cargo, but of every portable material. The cargo was 40 tons, or 160,000 herrings. Besides what was sent coastwise this year, he exported on board his ship, the *Alexander*, 340 tons, not in the herring trade, 1750 barrels to the West-Indies. Here has been a vast encrease of the fishery in the hands of one person, which shews clearly what might be done if larger capitals were employed. Mr. Alexander was prevented last year from doing so much as he might have done, and what he did was at a very great expence for want of proper houses, which are not to be had on Loch Swilly; and in order to remedy this inconvenience, has this year, 1776, built on the point of Inch island, called the Downing, a complete salting-house, consisting of a range of houses for all the operations, divided into four apartments, one of 20 feet by 18 a store-room for coarse salt, which will hold 150 to 200 tons; another of the same dimensions for fine salt; a third for receiving the herrings from the boats and gutting them, of the same size; and a fourth for a cooper's shop. These apartments all communicate with a second range, 80 by 18, which is filled with vessels for striking the herrings, that is, putting them for salt for 10 or 12 days; this communicates with a third house, 80 by 14, in which the herrings, being taken from the vessels above mentioned, are barrelled and finished off for the ships. Besides these there is a dwelling house for the clerks, &c. of 28 by 14. All these buildings are substantially erected of stone, and covered with slate. The finishing-house contains the boats when not in use, and above it is a light loft for the nets. Over the curing-house is a large loft for the empty barrels; and over the cooper's shop are apartments for the workmen, and over the gutting-house

house is a hoop store. But the salt houses are filled to the roof. All these buildings Mr. Alexander expects to finish completely for 500l. In 1775 there were about 1800 barrels exported besides Mr. Alexander's. There were that year fish enough in the Loch for all the boats of Europe. They swarmed so, that a boat which went out at seven in the evening returned at a eleven full, and went out on a second trip. The fellows said it was difficult to row through them; and every winter the plenty has been great, only the weather not equally good for taking, which cannot go on in a stormy night. In the buildings above described Mr. Alexander will be able to save 100,000 herrings a day, which will take 10 tons of salt, 17 or 18 boats, and 90 men; six men to carry from boats to the gutting-house; 40 boys, women, and girls to gut; four to carry from gut-house to curing-house; 10 men first salting and packing; eight men to draw from the vessels, and carry to the barrelling-house; and 10 packing into barrels, which 10 packers will keep five coopers employed; six men more will be employed in ranging the barrels and pickling off; eight men more carrying to the ship's boats. If 100,000 herrings come in regularly every day, this would be the course of the business. The buildings are in fact, a market to the country boats to resort to every day to sell their herrings, as far as the quantity above-mentioned extends.

*Calculation of the Expences of this Business, supposing
100,000 herrings cured every day.*

	£.	s.	d.
Buildings, 500l. interest of that sum, at 10 per cent. - - - - -	50	0	0
This high rate of interest is reckoned on account of the precariousness of all herring fisheries, as they frequently forsake seas and bays; and if they were to quit Loch Swilly, the buildings would be of little use but to let for a trifle as cabbins.			
18 boats, at 10l. - - - - -	180	0	0
90 stands of nets, at 40s. - - - - -	180	0	0
	<hr/>		
	360	0	0
Interest, at 6 per cent. - - - - -	21	12	0
Repairing the boats, 40s. each - - - - -	36	0	0
Ditto nets, they last but two seasons - - - - -	90	0	0
Wages of 90 fishermen, at 1s. 6d. a day, 8 weeks - - - - -	324	0	0
	<hr/>		
	521	12	0

N. B. At this expence of fishing, the
prime cost of the herrings, suppose
6000 taken by each boat a night, is 2s,
per 1000: but it must be obvious that
the boats cannot always go out, neither
will hired men fish for their masters as
they will for themselves. Hence the
merchant may find it more advantageous
to buy at 4s. 2d. than to depend entirely
on his own boats.

Wages

F I S H E R Y.

199

	£.	s.	d.
Brought over	521	12	0
Wages of 52 men, at 1s. 1d. a day, 8 weeks	135	4	0
18 boats, 108,000 herrings a day, are			
5,184,000; gutting at 5d. per 1000	108	0	0
Salt 10 tons per 100,000, or 518 tons, at			
2l. 10s. for the curing house	1295	0	0
Salt 246 tons, 17cwt. at 2l. 10s. for the			
barrelling house	617	2	6
9,874 barrels, at 8 ton, or 64			
barrels to the 1000 staves,			
will require 154,000 staves,			
at 7l.	1078	0	0
164,000 hoops, at 30s.	246	0	0
Making 1s. 2s. per barrel	575	19	8
7 nails to every barrel, which			
is allowing one for acci-			
dents, 58,000, at 2s. 2d.	6	5	8
	1976	5	4
Prime cost, 9s. 5d. a barrel.	4653	3	10
Freight of 9,874 barrels to the West Indies,			
at 3s. 4d.	1645	13	4
Duty on export, with gauger's fees, 9d.			
a barrel	370	5	6
	6669	2	8
Insurance and commission, 3 per cent. on			
that sum	200	1	5
	6869	4	1
Interest on that sum 8 months, at 6 per			
cent.	274	15	2
	7143	19	3
O 4			
The			

£. s. d.

The price in the West Indies rises from	
20s. to 30s. sterling a barrel. Average	
25s.—9,874 barrels at that rate	12342 10 20
Deduct expenses	7143 19 3
Profit	5198 10 9

But as the herrings are not always to be taken in this manner, that is, 6000 a night by the merchants boats; it will be necessary to calculate the business in the more common way of carrying it on, by buying them of the country boats, at 4s. 2d. per 1000.

Interest as before	50 0 0
Purchase of 5,184,000, at 4s. 2d. per 1000	1080 0 0
	1130 0 0
Labour	135 4 0
Cutting	108 0 0
Salt	1912 2 6
Barrels	1976 5 4
Prime cost	5261 11 10
Freight	1645 16 8
Duty	370 5 6
	7277 4 0
Insurance and commission	218 6 0
	7495 10 0

Interest on that sum, at 6 per cent. for 8 months	299 17 2
	7795 7 2
	Prime

Prime cost in West Indies 15s. 9d. a barrel.

Sell at -	-	-	-	-	12342	10	0
Expences -	-	-	-	-	7796	7	2

Profit -	-	-	-	-	4546	2	10
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4546, on the expences of 7796, is 58 per cent.—bounty of 2s. a barrel

-	-	-	-	-	987	8	0
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-	-	-	-	-	5533	10	10
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HERE appears a very noble profit; but fishing upon paper is an easier business than upon Loch Swilly; and it is necessary to observe, that the merchant who engages in this fishery, must provide, if he fishes himself, boats, nets, salt, barrels, and stores, all which must be ready, though not a herring should come into the Loch, or though storms prevent a boat going out. He must also have the sum ready in his counting house for all the other expences, in case the fishery proves successful, which upon the whole are circumstances that make great profits necessary, or the business would not be undertaken at all.

The investment of 8000l. in this fishery employs,

Men Ships Tons.

Fishermen	-	-	-	-	90	0	0
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Gutters	-	-	-	-	40	0	0
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Sundries	-	-	-	-	52	0	0
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To bring the staves, a ship of 200

tons seamen	-	-	-	-	16	1	200
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764 tons of salt, 3 ships	-	-	-	-	50	3	764
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9,874 barrels to the West Indies,

1234 tons 12 ships	-	-	-	-	120	12	1234
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-	-	-	-	-	368	16	2198
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Besides

Besides boat-building, net making, and coopers. And the 90 fishermen are a sure nursery of seamen; much of this great system of employment is in the depth of winter, when not demanded for other purposes.

AUGUST 8th, left Derry, and took the road by Raphoe, to the Rev. Mr. Golding's at Clonleigh, who favoured me with much valuable information. The view of Derry, at the distance of a mile or two, is the most picturesque of any place I have seen; it seems to be built on an island of bold land rising from the river, which spreads into a fine basin at the foot of the town; the adjacent country hilly, the scene wants nothing but wood to make it a perfect landscape. Passing Raphoe, found the husbandry in the neighbourhood of Clonleigh as follows. The soil is for the most part light loamy land, with single large stones, and very wet with springs, with considerable tracts of bog. Rents are from 15s. to 20s. the Cunningham acre, and some to 25s. and about towns some up to 30s. and 40s. Average rent of the whole county not more than 1s. Farms vary from 5 to 40 acres, in general 25 or 30, very many from 7 to 10. They are lessened by the farmers dividing them among their children. They generally sow flax, dress and spin it in their families. When cloth sells well, they get it wove by the weavers, who are also little farmers. At other times they sell the flax in yarn at market, many of them never having any woven at all. The spinners in a little farm are the daughters and a couple of maid servants, that are paid 30s. a half year, and the common bargain is, to do a hank a day of 3 or 4 hank

hank yarn. Much more than half the flax of the country is worked into cloth; a great deal of flax is imported at Derry, this country not raising near enough for its manufacture: their own is much the finest. Their tillage is exceeding bad, the land not half ploughed, and they like to have much grass among the corn for improving the fodder. Their course is;

1. Potatoes on 3 years lay. 2. Barley 10 barrells. 3. Oats 5 to 12 barrells. 4. Oats. 5. Oats. 6. Lay for weeds 3 years.

1. Potatoes. 2. Barley. 3. Oats. 4. Oats. 5. Flax 480 lb. clean scutched, or 30 stone.

THEY plant 14 measures, each 2 bushels of potatoe-seed an acre, the crop from 8 to 12 score measures. The flax I saw was nothing but weeds and rubbish of all kinds, yet the crop itself had an appearance of being good, as if the land was not to blame. As to manuring, they use very little more than the trifle they make in their stable and cow-house. A few use lime, but not many; the price is 10d. to 13d. a barrel: a little woollen cloth weaved, but not near enough to cloath themselves. They import a great deal from Galway. Land sells at 24 and 26 years purchase. Rents are very much raised; but they are fallen within four or five years; in 40 years conjecture that they are doubled. Tythes are compounded. Oats pay 5s. Barley 7s. Potatoes, flax, and hay, 5s. In some places potatoes free. Leases usually for three lives. Lord Abercorn only for 21 years and no lives, yet his estate is well cultivated. The farmers generally re-let some of their lands to cottars

cottars at a great increase of rent. The poor people live upon oatmeal, milk, potatoes, and herrings; but the poorest eat very little meat. A farmer of 10l. a year will have a good meal of beef or bacon every Sunday; in general they all live much better than they did formerly. I remarked that the labourers carried with them to their work an oat cake and a bottle of milk. All their milk is kept till fower, till which they do not make butter. Scarce any such thing as wheeled cars in the country, they are all sliding ones: a wheeled one 35s. a sliding one 2s. 6d. A plough 10s. 6d. A harrow of wood 1s. 1d. The fuel all turf, and much of it made by hand; a poor man's is 100 barrels a year, and will cost him 35s. The common people exceedingly addicted to thieving.

BUILDING a cabin 5l. they are all of stone, which is plentiful: clay-mortar instead of lime. Almost all the farmers have a man-servant at 1l. 10s. to 2l. the half year entirely employed in the farm. A farmer of 10l. a year always one. Very little cloth made farther than Ballymaffey, but all over Donnegal much spinning.

THE county of Tyrone is various; the finest parts are about Dungannon, Stewart's Town, &c. on Lake Neagh. From Strabane to Omagh much good; from Omagh to Ardmagh all cultivated. From Strabane to Dungannon almost all mountains: rent of the whole 4s. The bishop of Raphoe is a considerable farmer, and cultivates and hoes turnips. The dean has also done the same.

MR.

MR. Golding has used much soapers waste, at 4d. a measure of two bushels, laid on cold morassy soils, and found the benefit very great; it brought up quantities of red clover, and destroys moss effectually. Turnips would do excellently here, as beef rises from one-penny three farthings in november, to three-pence halfpenny and four-pence in april. Mr. Golding has used scotch cabbages for bullocks; generally fats two beasts every year on them. Sows the seed early in august, and transplants them in april and may for succession; has had them in full perfection in february and march; has tried spring sowings, but they do not come to more than 5 or 6lb. whereas the august sown plants rise to 35lb. He has also fed sheep upon potatoes, buys them very forward in october, and puts them to his after-grass to keep their flesh, and in the severe weather gives them the potatoes with great success. He took the hint from seeing the sheep walk over the potatoe grounds, and scratching up the remaining roots in hard weather. The only evil resulting from the emigrations was, the money they carried away with them, which was considerable.

AUGUST 9th, to Convoy, where I was so unfortunate as to find Mr. Montgomery from home; passing on to Ballymaffey, I met that gentleman's oxen, drawing sledge cars of turf, single with collars, and worked to the full as well as the horses. They deserved wheels however. On the other side of Ballymaffey, it is curious to observe, how, as you advance towards the mountains, cultivation gradually declines, it is chequered with heath, till at last the heath is chequered with cultivation, spots of green, on the mountain sides, surrounded by the dreary wilder-

wilderness; but there are no inclosures. The waste is exceedingly improvable; all the tract on the left before I came to the lake, and also beyond it, might easily be made excellent; it is bog, with a great fall every where, extends beyond the lake to the mountain foot, and is from 10 to 20 feet deep; rises in perfect hills, yet all bog. Lime is to be had here from 6d. to 8d. a barrel, six miles off. I had two accounts, one of 6d. and the other of 8d. but clayey gravel is to be had every where on the spot. The road leads across the bog, and is made of it. I remarked in several places, little bogs forming, spots of moss growing on the water, and in some places rotting, with other plants growing out of that. Cars may go three or four times a day for lime, and bring three barrels at a time. I was the more attentive to this bog, because it appeared to me to be one of the most improvable I had seen, and the size of it makes it an object worth the attention of some spirited improver; it is not every where that so decisive a fall is met with for rendering the drains effective; the distance from lime is advantageous. Suppose a car, is, a day, and to bring eight barrels, carriage of it then is $1\frac{1}{2}$ d. a barrel, and suppose the lime $7\frac{1}{2}$ d. in all 9d. 160, at that price, comes to 6l. at which rate, I am clear, it would answer to lay any quantity on to such bogs as these. I had often heard of roads being made over such quaking bogs, that they move under a carriage, but could scarcely credit it; I was, however, convinced now; for, in several places, every step the horse set, moved a full yard of the ground in perfect heaves. Got to a miserable cabin on the road, the widow Barclay's, which I had been assured was an exceeding good inn, but escaped without a cold, or the itch.

AUGUST

AUGUST 10th, got to Alexander Montgomery's, Esq; at Mount Charles, Lord Conyngham's agent, by breakfast; found he was so deeply engaged in the fisheries, on this coast, that I could not have got into better hands; with great civility he gave me every intelligence I wished; as an introduction to it, he took me a ride to the bays on the coast, where the fisheries are most carried on, particularly Inver bay, Macswine's bay, and Killibeg's bay. The coast is perfectly sawed by bays; the lands are high and bold, particularly about Killibegs, where the scenery is exceedingly romantic, and if the multiplicity of hills upon hills, and rocks, were planted, would be one of the most beautiful spots that can be imagined. The state of the fisheries may be judged from the number of boats employed in the several stations:

	1775	1776
Inverbay	52	72
Killibegs and Fintia	50	60
Tilin and Tawney	47	47
Bruckless	20	25
Boylagh and Rosses	50	50
Cloghanlee	18	18
Dunfanachly	20	25
Sheephaven	30	30
	<hr/> 287	<hr/> 327

IN Inverbay only of the above, there is a summer fishery for herrings, which begins the latter end of july, and ends the beginning of september. All the other places are winter fisheries, which begin in october, and end early in january, lasting eight weeks. Every boat costs 18l. to 20l. and has six shares of
nets,

nets, at 3l. to 3l. 3s. each: the nets are all made of hamp, from the Baltic, which cost, dressed, 8d. a pound, fit for spinning: 33 lb. of it in a share of nets: 4d. a pound paid for spinning it, or 11s. a share: weaving the nets 1d. a yard for one *fling*, or 63 meshes deep, 100 yards running measure, at that depth, in each share. Six hands in each boat, a skipper, and five men. In the common practice, a boat is divided into seven shares, the boat one; each net, half a one, and each man half: in which way they divide the produce, which vibrates between 10l. and 100l. average 35l. or per week 10s. a man. These boats belong, in general, to the common inhabitants of the country, farmers. &c. The other way of carrying the fishery on is, that those who have vessels on the bounty, fit them out at their own expence, and pay the skipper 1l. 11s. 6d. a month, and the common men 20s. a month; each a pair of trowsers, at 4s. 6d. feed them with as much potatoes, beef, and pork, as they will eat, and plenty of whiskey, which, all together, come to 20s. a month. The repairs of the boat and tackling are large, for all are built of fir, they come to 3l. per annum per boat, and the nets Mr. Montgomery uses two seasons, and then sells them for half price. In this manner of fishing, the boats catch each, on an average, 100,000 herrings, which is 1600 herrings a night, but the common boats of the country, not so well fitted up, take only 80,000. They are cured in bulk, that is packed into the holds of the vessels, from 20 to 100 tons each, and are sold all over the coast of Ireland. The quantity of salt necessary to the 80,000 herrings, which each boat catches, is seven tons, at the price of 2l. 14s. a ton; this is the price at which Mr. Montgomery sells, who has estab-

lished

blished considerable salt-works, making 450 tons annually, and has, by this means, reduced the salt from 3l. 10s. to 5l. down to 2l. 14s. The vessels employed on this fishery, for the bounty, are from 30 to 100 tons. A vessel of 100 tons, carries in bulk 500,000 herrings, or the produce of five boats; these calculations are in reference only to the average of nights and seasons; Mr. Nesbit's vessel, of 60 tons, has been loaded by four boats, in three nights, and Mr. Montgomery has taken 100,000 in one night, with two nets, but these are extraordinary instances. The parliamentary bounty is 20s. a ton, but there must be four men for the first 20 tons, and one for every 8 tons over, the owners of the vessels employ no more boats, than to enable them, by the crews, to draw the bounty; and what these men are not able to get, they buy of the country boats, at an average of 5s. a 1000, which all are clear, answers much better than having boats of their own.

Account of a vessel of 100 tons.

Building 2 boats, at 19l. - - - £. 38 0 0

N. B. The vessel of 100 tons, will be navigated by 7 men, as there must be 14, by the act, to draw the bounty; 7 men must be supplied by boats, which may be called 2-

Nets - - - - - 38 0 0

The boats are 19 to 21 feet keel, 7 feet 4 broad, and 3 feet 4 in depth. The nets are 120 fathom long at the rope, and 7 feet deep.

	£.	s.	d.
Interest of 76l. at 6 per cent.	-	4	10 0
Repairing of two boats	-	6	0 0
Ditto nets	-	4	10 0
Wages of twelve men,			
at 20s. two months	£. 24	0	0
Board ditto	-	24	0 0
Trowers	-	2	12 0
Skippers extra	-	2	2 0
Purchase of 300,000 herrings, at 5s.	-	52	14 0
N.B. The two boats are supposed to catch, each 100,000, remain therefore for the cargo 300,000	-	75	0 0
Forty tons of salt, at 54s.	-	108	0 0
Packing, salting, &c. four men, at 1s. a day, 48 days	-	9	12 2
		260	6 0
If vessels are hired to carry them to markets, the price is 5d. a 100 for freight, or 4s. 2d. a 1000, and 104l. 3s. 2d. per cargo for 100 tons	-	104	3 2
		364	9 2
Insurance, $1\frac{1}{2}$ per cent. on 300l.	-	4	10 0
Supercargo	-	20	0 0
		388	19 2
Interest on that sum for six months, at 6 per cent.	-	11	15 0
		400	14 2
At the ports they sell from 10s. to 35s. per 1000, on an average at 23s. a 1000,			
500,000 at that price	-	575	0 0
Expences	-	400	14 2
Profit $43\frac{1}{2}$ per cent.	-	174	5 10

F I S H E R Y.

211

And this account extends only six months from the first expenditure of the money, to the receipt from the cargo. If the vessel is the merchant's own, then the account will be as follows :

	£.	s.	d.
Expences as above	260	6	0
Building, rigging, and fitting out a vessel of 100 tons; 700 l. interest of which, at 6 per cent.	42	0	0
A year's pay of the captain, at 4l. a month	48	0	0
Six men at 30s.	99	0	0
Repairs and outsets, 10s. a ton	50	0	0
Stores for seven men, at 15s. a month	63	0	0
Per annum	302	0	0
Which for five months	125	10	0
Ded. the bounty 100	0	0	0
Fees and charges 5	0	0	— 95 0 0
Expences	290	16	0
Insurance cargo, 1½ per cent.	4	10	0
Ditto on ship	10	10	0
	15	0	0
	305	16	0
Interest on that sum, for six months, at 6 per cent.	9	3	0
	314	19	0

	£.	s.	d.
Produce	575	0	0
Expences	314	19	00
Profit	260	1	0

Here appears to be a loss of 28 per cent. by accepting the bounty: but the explanation of this lies in the difficulty of being sure of a vessel on freight; this is not always certain, which induces them to build, though freighting those of other people is so evidently cheaper. Respecting the mode of taking the fish, the boats, as before mentioned, are provided with all the accoutrements necessary; and here it will be proper to mention an improvement of Mr. Montgomery's, by which he has saved greatly: in common the nets are tanned with bark, but he mixes tar and fish oil, five parts of tar, and one of oil, melted together, to incorporate thoroughly, and while quite hot, puts the nets into a tub, and pours it upon them, in quantity sufficient to wet them; draws it off by a hole at the bottom of the tub, immediately, in order that too much of it may not stick, and make them clammy, which would be the case, if it cooled on them; at the bottom of the tub should be an open false bottom, or the nets will stop the hole, and the mixture will not run off free enough. By means of this simple operation, the nets are prevented from rotting, and the fishermen are saved the trouble of ever spreading and drying them, which in common is done every day, and is a great slavery in the short days; the benefit has been found so great, that almost all the country has come into it, and every net on the coast would, this year, have been done, but the scarcity of the tar, owing to the American war, prevented it. In working the nets also, Mr. Montgomery

men have made improvements; he has found that corking the line under the strapped buoys is wrong, as it keeps it in an uneven direction; he has a vacancy of corks for three fathom on each side the buoy line, but the middle spaces corked thick, which he finds to answer exceedingly well. He remarks that the fishery suffers very much, for want of an admiral being appointed, as in Scotland, to hear and determine differences; there is no order or regularity kept up, but much disturbance and loss for want of it. In the sale of the herrings, the merchant suffers greatly, by the competition of the Gottenburg and Scotch fishery. At Corke, great quantities of Gottenburg herrings are imported, which, though they pay a duty of 4s. a barrel, yet, as 2s. 4 $\frac{1}{2}$ d. is drawn back on the re-exportation, and with an advantage of packing the herrings, of 20 Gottenburg barrels, into 25 Irish ones, and consequently having the drawback on 25, though the duty is only paid on 20, with all these circumstances, great quantities of them are sent to the West-Indies, to the prejudice of the Irish fishery. Another mischief is, that though there is a bounty of 2s. 4d. a barrel exported, yet such are the fees, and old duty, that the merchant receives only 11 $\frac{1}{2}$ d. and that so clogged and perplexed with forms and delays, that not many attempt to claim it. The drawback on the foreign herrings is paid immediately on the merchants oath, but the Irish bounty not till the ship returns, with I know not how many affidavits and certificates from consuls and merchants, it may be supposed perplexing when it is not claimed. The Scotch have a bounty per barrel, on exportation, which they draw on sending them to Ireland, by which means they are enabled, with the assistance of a higher bounty on their vessels, to undersell the

Irish fishery in their own markets, while the Irish merchant is precluded from exporting to either Scotland or England; this is a very hard case, and certainly may be said to be one of the oppressions on the trade of Ireland, which a legislature, acting on liberal and enlarged principles, ought to repeal. The trade of smoaking herrings, which is considerable in England, might be carried on here, to much greater advantage, if there was wood to do it with. In the Isle of Man they have smoak-houses, supplied with wood from Wales; it is a strange neglect, that the landlords do not plant some of the monstrous wastes in this country with quick growing copse wood, which would, in five or six years, enable them to begin the trade. The plenty of cod on this coast is very great, quite from Hornhead to Mount Charles, in winter, when the herrings set in, and may then be taken in any quantities. Some wherries come for cod, ling, glassen, &c, all which are plentiful; but on the banks they are to be taken in summer, and in the winter they follow the herrings.

In all the bays on the coast, in march and april, there are many whales, the bone sort; they appear on the coast in february, and go off to the northward the beginning of may; sometimes they are in great plenty, and in november to february, there are many spermaceti whales; this induced Thomas Nesbit, Esq; of Kilmacredon, to enter into a scheme for establishing a fishery on the coast, and in executing it, was the inventor of the gun harpoon. Mr. Nesbit first used the gun harpoon for killing whales, in the year 1759; he was induced to try this, from great difficulties he met with among the harpooners, who he had engaged for the fishery; in this year he began

began it, with firing lances at them, after they were struck by the hand, in order to kill them the sooner. From this he passed, in 1761, to firing the harpoon itself from the gun. He was then engaged with a company, for the purpose of carrying on the fishery, with several persons in Ireland, England, and the West-Indies. In the year 1758, he went to London, and bought a vessel of 140 tons, and engaged persons to come over as harpooners. In 1759, one whale was caught by the hand harpoon. In 1760, the Greenland harpooners, Dutch, English, Scotch, and Danes, were at it, and not one fish taken. This year there were several Greenland ships on the coast, not one of whom caught a fish. In 1761, with the gun harpoon, killed three whales, and got them all; after which he every year killed some, except one year, when he killed 42 sun fish in one week, each of which yielded from half a ton, to a ton of oil. Mr. Nesbit has since given it up, not from want of success in the mode of taking the whales, but from being put, by his partners, for want of knowledge in the business, to useless expences. From many experiments, he brought the operation to such perfection, that, for some years, he never missed a whale, nor failed of holding her by the harpoon: he had for some time ill success, from firing when too near, for the harpoon does not then fly true, but at 14 or 15 yards distance, which is what he would chuse, it flies strait; has killed several at 25 yards.

WHEN the harpoon is fired into the whale, it sinks to the bottom with great velocity, but immediately comes up, and lays on the surface, lashing it with tail and fins for half or three quarters of an hour, in which time he fires lances into it, to dispatch it, and

when killed, it sinks for 48 hours, where he leaves a boat, or a cask, as a buoy to mark the place, to be ready there when the whale rises, that they may tow it into harbour, according as the wind lays. To carry on this business here, he knows from experience, that nothing more would be wanting, than a ship of 130 tons, with 100 tons of cask : three boats, with each 8 men, six to row, one to steer, and one with the gun, with ropes, harpoon, lances, &c. the whole very much inferior to the expence of equipping a Greenlandman.

IN respect to the linen manufacture, it consists in all this country in spinning yarn only. Very little cloth woven here, except for the use of the people. They raise flax enough for their spinning in years when seed is plentiful and dry seasons, but some are so wet as almost to spoil the crop: all the women, and children of ten years old and upwards spin. They very seldom let the seed ripen; they have tried it, but found it did not answer so well as foreign seed. It is computed that there are two spinners in every family, who spin about one hank a day, or a spangle and a half a week; the medium is 2 lb. to the spangle, or 4 hanks, which is half a pound of flax each day. A woman will earn, by spinning, according to the price of flax and yarn, from 2d. to 6d. but in general 2½d. or 3d. besides doing little family trifles. Most of the yarn goes to Derry.

THE soil about Mount Charles is various; a great deal of stiff blue clay, which is perfectly tenacious of water. Much bog, and a great range of high mountains near it, which break the clouds with

MOUNT CHARLES. 217

with a westerly wind, and occasions much rain. Rents per acre, are from 5s. to 10s. 6d. arable, some up to 11. 1s. wastes 2s. 6d. to 3s. 6d. inclosed. Mountains pay some rent, but not by the acre. The whole county through does not let for above 2s. 6d. There are very great extents of mountain all the way from Mount Charles to Ards, by Loch Fin, which is 30 Irish miles in a right line; it is range of mountains, but most of the valleys are slightly cultivated, though corn does very bad in them from the wetness of the climate. The farms arise from 5 or 6 acres to 30 cultivated; but mountain farms are more extensive. The courses: 1. Potatoes, manured for with dung, or by the coast with sea weed; get good crops, and from the sea weed rather better than from dung. 2. Barley, if the land is good. 3. Oats. 4. Lay out for grafs; very few sow grafs seeds 2 or 3 years.

1. Potatoes. 2. Oats. 3. Lay out for grafs 2 or 3 years.

UPON dry land they use lime, which is sold at 6d. to 8d. the barrel of 28 gallons, or 3 bushels and a half, but generally burn it themselves. There is lime-stone at St. John's Point, and other parts towards Killibegs, and beyond it to the westward. They burn it with turf, which is plentiful every where. They have grey marle near Donnegal, and find a good effect from the use of it. Upon the dry mountains they have flocks of sheep, not large ones; but every poor man keeps some, the wool their profit, and sell them at 2 or three years old. In stocking a farm they look not farther than having the horses and cows. Land sells at 21 or 22 years

years purchase, rack rent ; it sold better from 1762 to 1768, and the rents are fallen. For two years they have been at a stand ; but the fall has not been felt near the coast, the herring fishery keeping them up. The farmers here in general pay half a year's rent with fish, and half with yarn. Tythes are generally compounded in the gross. The middle men were common, but not now. The poor people live upon potatoes and herrings 9 months in the year along the coast, and upon oat bread and milk the other three. Very little butter, and scarce any meat. They all keep cows, most of them a pig or two, and a few hens, and all a cat or a dog. No tea. They are in general circumstances not improved. Rent of a cabin, with a garden and a cow's grass, 20 or 30s.

A farm of 20 acres.

1½. Potatoes. 1. Flax. 5. Oats. 1. Barley. 2. Mowing ground. 9½. Feeding. Rent 10l. Six cows, 2 horses, 6 sheep, 2 pigs. People increase. But little emigration. Religion more than half catholic. Rise in the price of labour 1d. a day in 20 years ; and in provisions, one third in that time. The following is a return of population, procured by Colonel Burton's orders, on a part of Lord Conyngham's estates.

Manor

MOUNT CHARLES. 219

EXPENCE																			
Papists.																			
Protestants.																			
Total.																			
Maid servants.																			
Men servants.																			
Other children.																			
Sons grown up to 14.																			
Wives.																			
Number of heads of families.																			
Manor of Mount Charles. County of Donegal, 15,000 acres.	601	521	322	1478	127	105	3154	1138	2016	Particulars of part of Magherymore.	367	320	244	1047	45	42	2065	302	1763
Manor of Magherymore. Ditto county.	699						3887	737	3150	Manor of Shana Golden. County of Limerick, 4,500 acres.	282								
Cas generally finding ones, on account of the hills.							1460												

Cars generally sliding ones, on account of the hills.

EXPENCE of building a mud cabbín 3l. of stone and slate 40l. In different places in Lord Conyng-ham's estate in Boylagh are many lead mines mixed with silver, none of them wrought; miners who have examined them say there is much silver in the ore. The lead is apparent in many breaches of the rocks.

AUGUST 11th left Mount Charles, and passing through Donnegal, took the road to Ballyshannon; came presently to several beautiful landscapes, swelling hills, cultivated with the bay flowing up among them: they want nothing but more wood, and are beautiful without it. Afterwards likewise to the left, they rise in various outlines, and die away insensibly into one another. When the road leads to a full view of the bay of Donnegal, these smiling spots, above which the proud mountains rear their heads, are numerous, the hillocks of almost regular circular forms; they are very pleasing, from form, verdure, and the water breaking in their vales.

BEFORE I got to Ballyshannon, remarked a bleach green, which indicates weaving in the neighbourhood. Viewed the salmon-leap at that place, which is let for 400l. a year. The scenery of it is very beautiful; it is a fine fall, and the coast of the river very bold, consisting of perpendicular rocks, with grass of a beautiful verdure to the very edge, projects in little promontories, which grow longer as they approach the sea, and open to give a fine view of the ocean. Before the fall in the middle of the river is a rocky island, on which is a curing house, instead of the turret of a ruined

a ruined castle, for which it seems formed. The town prettily situated on the rising ground on each side the river.—To Sir James Caldwell's; crossing the bridge, stopped for a view of the river, which is a very fine one, and was delighted to see the salmon jump, to me an unusual sight: the water was perfectly alive with them. Rising the hill, look back on the town; the situation beautiful; the river presents a noble view. Come to Belleek, a little village, with one of the finest waterfalls I remember any where to have seen; viewed it from the bridge. The river in a very broad sheet comes from behind some wood, and breaks over a bed of rocks, not perpendicular but shelving, in various directions, and foams away under the arches; after which it grows more silent, and gives a beautiful bend under a rock, crowned by a fine bank of wood. Reached Castle Caldwell at night, where Sir James Caldwell received me with a politeness and cordiality that will make me long remember it with pleasure.

AUGUST 12th. The following account of the husbandry around Castle Caldwell, Sir James favoured me with. The soil in the vale to Belleek is a yellow clay, 1 to 2 spit deep on a lime-stone rock, the whole interspersed with bog and morafs. Large tracts uncultivated. Rents vary from 15s. to 20s. an acre cultivated, but mountain and mountain sides are not measured; wherever the plough goes, will yield 7s. at the lowest. In the mountains they pay but 3s. for the summer food of a cow; and for a horse 4s. 6d. The county of Fermanagh may be divided into 6 parts; one-sixth the lake

1222 CASTLE CALDWELL.

lake at no rent. Mountains and bogs two sixths, the rest of the county at 12s.

THE course of crops is; 1. Potatoes. 2. Potatoes. 3. Barley or flax. 4. Oats. 5. Oats. 6. Oats. 7. Lay out for grass. Wherever there are spots of meadow they are mown. Great numbers of farms are taken in partnership in *rundale*; indeed the general course is so, upon a farm of 100 acres, there will be 4, 5, or 6 families; but families will take such small spots as 5 or 6 acres. Farms in general rise from 5 acres to 3 or 400; but all the large ones are stock farms; in general none so high as twenty: all in *rundale*, partnership or stock. Many of the latter part mountain, part arable, and these are the only farms of substance in the country. One of 80l. a year will require 4 or 500l. to stock it. These farmers buy year olds every year, and every year sells as many four year olds; he gives 30s. each, and sells at 5l. 10s. or 6l. and this he reckons a reasonable profit. Also 3 and 2 year old heifers that have missed the bull, keep them through the winter, and sell them in may, with 18s. to 20s. for wintering them on coarse grass without any fodder. In summer they feed on mountains. Those who buy the mist heifers are farmers in Monaghan and Cavan, on coarse farms, who turn them on the mountains, give them the bull, and sell them out in the spring to the weaving farmers in the linen country, who change their stock.

THE measures here are pecks and barrels; the weight of the peck of potatoes in Ballyhannon is 5 stone, 4lb. and 10 pecks, make a barrel: in the country they give 6 stones. The acre the plantation measure.

measure. Of potatoes, which they set all in the trenching way, they plant 4 barrels an acre, and get on an average 7 or 8 for one, that is, 32 barrels an acre. The price 8s. a barrel on a medium, or 12l. 10s. an acre; but it is obvious that this peck is a measure of their own. They manure generally for them with dung; but often with lime and bog mud mixed, and burnt clay, which they find does very well. In the county of Tyrone, towards Ardmagh and Dungannon, they will bring lime-stone 14 or 15 miles, burn it, and sprinkle their potatoe land with it to prevent the black rot. Rent of Tyrone on an average 7s.

Of barley they sow 20 stone; the barrel of barley is 25 stone, and of malt 20. An acre on an average will yield 10 barrels, at 16 stone. Of oats they sow a barrel, at 20 stone, and get 8 for one. Of bere they sow the same, and get 9 barrels; barley sells better than bere generally; for flax they plough once on potatoe land. The expence of an acre they reckon.

PRICE of lime at the kiln 6d. a barrel. Sir James Caldwell has his stone quarried, carried, broke and burnt, and drawn 100 yards, for 4d. a barrel labour; six score horse loads of turf cost 4s. cutting and saving, and leading by water, costs 5s. more, which 6 score loads will burn at the rate of a load and a half a barrel. They plough all with horses, 2 or 3 abreast.

LAND sells, at rack rent, at 20 to 24 years purchase: has not fallen. Rents are fallen in 5 or 6 years

years 2s. an acre. There is a great deal of letting lands in the gross to middle men, who relet it to others; these middle men are called *terny bays*, or *little landlords*, which prevail very much at present. They make a great profit by this practice. The people in all the neighbourhood increase very fast. They are all in general much more industrious, and in better circumstances than they were some years ago. Their food, for three fourths of the year, chiefly potatoes and milk, and the other quarter oatmeal: in the winter they have herrings. They have all a bellyful of food whatever it is, as they told me themselves; and their children eat potatoes all day long, even those of a year old will be roasting them. All keep cows, and some cocks and hens, but no turkies or geese. Six people; a man, his wife, and four children, will eat 18 stone of potatoes a week, or 252lb. but 40lb. of oatmeal will serve them. Rent of a cabbin, garden, and one acre, 20s. a cow's grafs 30s. a cow requires one acre and a half for summer; and they buy a little hay for winter, and give the cow small potatoes and cabbage-leaves, &c.

THE common people are remarkably given to thieving, particularly grafs, timber, and turf, and they bring up their children to hoking potatoes, that is, artfully raising them, taking out the best roots, and then replanting them, so that the owner is perfectly deceived when he takes up the crop. A poor man's turf from 15s. to 20s. Living is exceedingly cheap here, besides the common provisions, which I have every where registered, wild ducks are only 3d. and powder and shot: plover 1½d. and ditto: woodcocks 1d. and ditto: snipes 1½d. and ditto: teal 2d. and ditto; and widgeon the same: salmon 1½d. a lb. trout,

trout, perch, pike, and bream, so plentiful as to have no price. Sir James Caldwell has taken 17 cwt. of fish, bream and pike, in one day: cod 3s. a dozen: whit-
 ing from 8d. to 1s. a dozen: herrings from 3d. to 9d. per 100: lobsters from 3s. 6d. to 4s. a dozen: oysters 6d. to 2s. a 100: eels 2s. a dozen: crabs 1s. to 2s. a dozen: wages, 6l. dairy-maids and others, 4l. There is very little weaving in this country, except what is for their own use, but spinning is universal in all the cabbins. They receive for spinning spangle yarn, or four hanks, 1s. 2d. a spangle, and they will spin it in four days. Country servants are hired at 3l. a year, who engage to do the work of the house, and spin a hank, that is a dozen a day, there are 12 cuts to the dozen.

In the mountain tracts, the rents are paid by yarn, young cattle, and a little butter. They spin a good deal of wool, which they make into druggets, the warp of tow-yarn, and the weft of wool. The particulars of 34 of Sir James's labourers gave an average of 3½ cows per man, and 6 souls per cabin.

Nothing can be more beautiful than the approach to Castle Caldwell; the promontories of thick wood, which shoot into Loch Earne, under the shade of a great ridge of mountains, have the finest effect imaginable: as soon as you are through the gates, turn to the left, about 200 yards to the edge of the hill, where the whole domain lies beneath the point of view. It is a promontory, three miles long, projecting into the lake, a beautiful assemblage of wood and lawn, one end a thick shade, the other grass, scattered with trees, and finishing with wood. A bay of the lake breaks into the eastern end, where it is perfectly wooded: there are six or seven islands, among them that of *Bow* three miles long, and one

an half broad, yet they leave a noble sweep of water, bounded by the great range of the Turaw mountains. To the right, the lake takes the appearance of a fine river, with two large islands in it, the whole unites to form one of the most glorious scenes I ever beheld. Rode to the little hill above Michael Macguire's cabin; here the two great promontories of wood join in one, but open in the middle, and give a view of the lake, quite surrounded with wood, as if a distinct water; beyond are the islands, scattered over its face, nor can any thing be more picturesque than the bright silver surface of the water breaking through the dark shades of wood. Around the point on which we stood, the ground is rough and rocky, wild and various, forming no bad contrast to the brilliant scenery in view. Crossing some of this undressed ground, we came to a point of a hill, above Paddy Macguire's cabin; here the lake presents great sheets of water, breaking beyond the woody promontories and islands. At the bottom of the declivity, at your feet, is a creek, and beyond it the lands of the domain, scattered with noble woods, that rise immediately from the water's edge; the house, almost obscured among the trees, seems a fit retreat from every care and anxiety of the world: a little beyond it the lawn, which is in front, shews its lively green among the deeper shades, and over the neck of land, which joins it to the promontory of wood, called *Ross a goul*, the lake seems to form a beautiful wood-locked bason, stretching its silver surface behind the stems of the single trees; beyond the whole, the rocks of Turaw, give a magnificent finishing. Near you, on every side, is wild tossed-about ground, which adds very much to the variety of the scene. From hence we passed to the hill in the park, from whence the scenery

is

is different; here you see a short promontory of wood, which projects into a bay, formed by two others considerably more extensive, that is *Ross a goul* and *Rossmoor east*. The lake stretches away in vast reaches, and between numerous islands, almost as far as the eye can command. In the great creek, to the right, which flows up under the mountain of Turaw, are two beautiful islands, scattered with trees, which give the most agreeable variety.

In another ride, Sir James gave me a view of that part of his domain which forms the neck of *Rossmoor*; coasted it, and crossed the hills; nothing can exhibit scenes of greater variety or more beauty. The islands on every side are of a different character; some are knots or tufts of wood, others shrubby. Here are single rocks, and there fine hills of lawn, which rise boldly from the water; the promontories form equal distinctions; some are of thick woods, which yield the darkest shade, others open groves, but every where the coast is high, and yields pleasing landscapes. From the east point of *Rossmoor*, the scenery is truly delicious. The point of view is a high land of wood, lawn, &c. which projects so far into the lake as to give a double view of it of great extent. You look down a declivity on the lake which flows at your feet, and full in front is the wood of *Ross a goul*, at the extreme point of which is the temple: this wood is a deep shade, and has an admirable effect. At the other end it joins another wood, in which the lawn opens beautifully among the scattered trees, and just admits a partial view of the house; carrying your eye a little more to the left, you see three other necks of wood, which stretch into the lake, generally giving a deep shade, but here and

there admitting the water behind the stems and through the branches of the trees; all this bounded by cultivated hills, and those backed by distant mountains. Here are no objects which you do not command distinctly: none that do not add to the beauty of the scene, and the whole forming a landscape rich in the assemblage of all its parts. The other reach of the lake varying under Rossmoor is a different scene, bounded by the mountains and rocks of Turaw: to the right these reaches join the lake, which opens a fine expanse of water spotted with islands. It is upon the whole a striking scene. Little of the sublime, but the very range of beauty, gaiety and pleasure, are the characters of the spot; nature makes no efforts here but those to please; the parts are of extreme variety, yet in perfect unison with each other. Even the rocks of Turaw have a mildness in their aspect, and do not break the general effect by abrupt or rugged projections. It was with regret I turned my back on this charming scene, the most beautiful at Castle Caldwell, and the most pleasing I have any where seen. Rode round *Ross a goul*, the promontory in front of the house, from which the views are exceedingly beautiful, commanding a noble hanging wood on the banks of Rossmoor, and the woody necks that stretch from the land beyond the house, with several islands. On the point, Sir James has built an octagon temple, which takes in several views that are exceedingly pleasing; this neck of land is a wood of 40 acres, and a more agreeable circumstance so near a mansion can scarcely be imagined.

TAKE my leave of Castle Caldwell, and with colours flying, and his band of music playing, go on board

board his six-oared barge for Inniskilling; the heavens were favourable, and a clear sky and bright sun, gave me the beauties of the lake in all their splendor. Pass the scenes I have described, which from the boat take a fresh variety, and in all pleasing.

EAGLE island first salutes us, a woody knole. Others pass in review; among the rest, Herring island, noted for the wreck of a herring-boat, and the drowning of a fidler; but the boatmen love herrings better than music, and gave their name to the isle, rather than that of the son of Apollo. Inniskil is all wood. Rabbit island 40 acres of pasture, which rises bold from the water. Innismac Saint also 40 acres of grass. Then comes a cluster of woody islands, which rise in perfect hills from the water's edge, the wood dipping in the lake, and they are so numerous that the lake is cut by them into winding straits, more beautiful than can be thought. The reader may imagine how exquisite the view must be, of numerous hills of dark and complete wood, which rise boldly from so noble a sheet of water: they form a most singular scene. Wherever the shore is seen, it is rising land; in some places woods, in others cultivated hills. Passing these sylvan glories, we come next to the Gully island, all of wood, 100 acres: much of it bold rising land, and the oak dips in the water. What a spot to build on, and form a retreat from the business and anxiety of the world! Nature here is blooming. It is in the midst of a region where one would think she has almost exhausted herself in producing scenes of rural elegance. It belongs to Lord Ely; I envy him the possession. The only thing it yields its owner is a periodical profit from cutting its beautiful woods. Shelter, prospect, wood

and water, are here in perfection; what more can be wished for in a retreat, if an unambitious mind gilds the scene with what neither wood nor water can give — *content*? The sacrilegious axe has desolated three parts in four of its noble covering; and it will be 15 years before the rough ground and naked stubs are again cloathed.

Pass the hanging grounds of Castle Hume; some of them very beautifully crowned with wood, and the opposite coast of the lake, wood and cultivation. Car and Ferny islands bold lands cut into fields of corn give a fresh variety, and the woods of Castle Hume surround a bay to the right, at the bottom of which is the Castle half hidden with trees. It opens, however, to the view soon after, and accompanied on each side by a fine wood, and the surrounding ground various. The lake then takes the form of a bay, between some pretty cultivated slopes on one side, and Devenish island on the other, with its tower full in view. Advancing, the coast on the right is cultivated, divided into inclosures by hedges, and the waving hills rising one beyond another in a various and pleasing manner; the opposite shore is the same, but the view more distant. The island of Devenish is part of it very rich land; the poor people pay 5l. an acre for the old grass for one crop of potatoes. About Ballyshannon it is 3l. or 4l. per acre. The barley on the island after the potatoes is exceedingly fine. When you come abreast of the round tower, look backwards to the right, the scenery is very beautiful, the wood at the extremity, the waving hills under grass and corn, which spread over this whole coast, form the front view, and unite with the lake to make a most pleasing landscape. Landed at Inniskilling,

Inniskilling, and that evening reached Castle Cool, the seat of A. Lowry Corry, Esq; who was absent in the county of Tyrone, but Mrs. Corry was so obliging as to procure me the information I wished.

AUGUST 15th, rode to the Topped Mountain, from whence is an immense prospect of many counties, and commanding Loch Earne from one end to the other, in length above 40 miles; the great sheet is towards Castle Caldwell; that to Belturbet is so thickly strewed with islands, that the water has more the appearance of several woods. Around Inniskilling, &c. land lets on an average at 10s. to 12s. an acre that is cultivated, but there is some mountain and bog that lets for little or nothing. Farms are various, many small ones of a few acres, but the most common size is 40 to 70 acres, with some large stock ones of 2 or 300l. a year: the soil is principally a wet tenacious clay. The system of these stock farms is to keep cattle of various ages, from year-olds to fat ones of five years, according to the quality of the land: they keep but few sheep. Weaving is but just coming in, but increases much; the spinning is common all over the county in every cabin, by the women and girls: they do not quite raise flax enough to supply their own demand.

THE course of crops most general: 1. Potatoes. 2. Barley. 3. Oats. 4. Flax. 5. Laid out for grass. Farms very much taken in the *rundale* way by partnership.

THE people increase very fast in this neighbourhood, and are in better circumstances than they were some years ago. Some live on potatoes and milk, for

all keep cows, and they eat some flesh meat. The number of little farmers who are supported by their farms alone, is considerable, from whence it is plain that linen has not taken deep root. There are two bleach greens within seven miles, and all they bleach is made in the country. A woman will earn 4d. a day by spinning, and do something in the family besides. The manure principally used is lime, which on an average costs them about 8d. a barrel, and they lay 80 and upwards per acre.

AUGUST 15th, to Belleisle, the charming seat of the Earl of Ross. It is an island in Loch Earne of 200 Irish acres, every part of it hill, dale, and gentle declivities: it has a great deal of wood, much of which is old, and forms both deep shades, and open cheerful groves. The trees hang on the slopes, and consequently shew themselves to the best advantage. All this is exceedingly pretty, but it is rendered trebly so by the situation: a reach of the lake passes before the house, which is situated near the banks among some fine woods, which give both beauty and shelter. This sheet of water, which is three miles over, is bounded in front by an island of thick wood, and by a bold circular hill, which is his Lordship's deer park, and is itself backed by a considerable mountain. To the right are four or five fine clumps of dark wood; so many islands which rise boldly from the lake, that the water breaks in straits between them, and forms a scene extremely picturesque. On the other side the lake stretches behind wood, and forms Belleisle. Lord Ross has made walks round the island, from which there is a considerable variety of prospect. A temple is built on a gentle hill, commanding the view of the wooded islands above-mentioned;

mentioned; but the most pleasing prospect of them is coming out from the grotto: they appear in an uncommon beauty; two seem to join, and the water which flows between takes the appearance of a fine bay, projecting deep into a dark wood: nothing can be more beautiful. The park hill rises above them, and the whole is backed with mountains. The home scene at your feet also is pretty; a lawn scattered with trees that forms the margin of the lake, closing gradually in a thick wood of tall trees, above the tops of which is a distant view of Cultiegh mountain, which is there seen in its proudest solemnity.

To Lord Ross's very obliging attention I am indebted for the following particulars: — Rents about Belleisle are upon an average 10s. an acre for grass and arable, but mountain sides are set by the lump, according to the number of cattle they feed. The soil is all blue clay. Farms are generally 50l. or 60l. a year; where there are weavers they are very small, but the number does not exceed a twentieth of the whole. They, however, increase fast; they have doubled their number in 10 years. Seventeen years ago, there not being a bleach mill, Lord Ross erected one; after which more were built, but in the whole county not more than ten. Average rent of cultivated land in Fermanagh, 10s. Course, 1. Potatoes, 2. Barley, 3. Oats, 4. Oats, 5. Oats. 6. Laid out six or seven years. 1. Potatoes, 2. Barley, 3. Oats, 4. Flax, 5. Laid out, some sow grass seeds. Potatoes yield 20 barrels an acre; each 4 bushels; they plant two and an half to an acre; the price from 2s. 6d. to 20s. generally 10s. on stiff land, two crops of potatoes, but not on light. Barley

ley yields from 10 to 15 barrels; oats from 6 to 10 barrels, but sometimes not 5.

THE linen wove here, is from 6 to 1800, but in general 1200. A woman spins one hank, for which she has three halfpence and board, if no board, fourpence; the length of the webs vary, some ten yards, but in general double ones of fifty yards; it takes two hanks of yarn to every yard of the web; the weavers have five-pence a yard for weaving it, and they will do three yards a day; they sell it at monthly markets. They breed up their sons more and more to weaving, as it increases much, and these people pay their rents by it, but they send off much more yarn than they weave.

THE food of the poor is potatoes, butter-milk, and oat bread. They all keep cows and pigs. Most of the country is under grazing, some of which farms rise to 500l. a year. They generally buy in year-old calves, for which they give, on an average, 1l. 1s. to 1l. 5s. and keep them till they are four years old, and sell them lean to the graziers of other countries, who have land that will fatten: sell them from 5l. to 6l. a bullock; thus, every year, they buy in, and sell out a stock. Upon a farm in the neighbourhood, of 350l. a year, besides horses, cows, and sheep, the farmer sells one hundred bullocks every year. Many cows are fattened, bought in in may, at 2l. 10s. to 5l. and sold out in november, at 1l. 11s. 6d. profit, and a good acre will carry one of them, but in general it will take more. No dairies. Some sheep are kept, the lambs fold, at three and four months old, at 5s. to 10s. 6d. each, 7s. or 8s. in general; the wool of the ewe, 4s. 4d. Some buy two or three year old

old wethers, for fattening, in june, at 15s. and sell them fat in march or april following, at 1l. 1s. to 1l. 6s. Breeding ewes reckoned the most profitable, unless the land is very good. In moory land, they use lime for manuring, at 7d. a barrel, but if the farmer burns it himself, and has the stone convenient, it is done for 3d. with turf. A good deal of hollow draining, filled with stones, some with sods, but done only by gentlemen. Much corn, &c. by poor people, put in with spades, which they call *loys*, because they have no horses, and one acre of oats dug, is worth one and a half ploughed; some do it on this account, though they have horses.

LORD ROSS has generally a small field of turnips and cabbages for feeding sheep in the winter; finds that cabbages are much the best, and last the longest.

AUGUST 17th, rowed to Knockinny, the deer park, three miles across the lake, through a maze of woody islands. Land on Lady Ross's, of 40 acres, in which she has cut walks leading through a great variety of ground; in some places through open groves of large trees, in others close dark wood; through lawns and rough ground, from some of which there are various views of the lake, and from others it is so perfectly excluded, that one would not think water was so near. There is a cabbin for a poultryman, a covered bench, and a spot marked out for a cottage. As the boat approached Knockinny, a pretty bay opened upon us, round which, on one side, is a projecting point of wood, and on the other, the hill of Knockinny, with the wood rising up its side, uniting with that of the point to form one mass. From the hill the view is very fine; you look
down

down on 11 or 12 wooded islands scattered over the lake, with others cultivated, and the country rising around it. Belleisle appears to stand in the midst of a very large wood. The fish, in this part of the lake, are perch, pike to 40 lb. trout, eels, bream, &c. It is extraordinary that perch should appear in all the lakes of Ireland and in the Shannon at the same time, which was about 17 years ago. Large flights of swans sometimes appear here in winter, and are sure signs of a severe one.

REACHED Florence Court, Lord Inniskilling's seat, situated on an eminence under a great ridge of mountains. That nobleman procured me, with the politest attention, the following particulars.

THE soil in general is a thin surface, 4 to 8 inches of stoney mould, under that a tough yellow clay of 14 to 18 inches, and under that a purple lime stone gravelly clay, a good manure for tillage, but bad for grass. Lets on an average at 10s. an acre the new leases; but if there is bog or mountain, it is thrown in at that rent. Mountain sides of dry lime-stone soil will let at 6s. heathy ones thrown in. About Inniskilling, Lord Inniskilling has a considerable property; and heathy mountain within two miles of the town lets at 9s. The town parks from 40s. to 3l. 3s. The cultivated land, not town parks, from 12s. to 20s. In respect to the advance of rents, it will best appear by inserting the totals of some of Lord Inniskilling's farms, at old and new rents, in various soils and situations at Florence Court, Inniskilling, near Swadling-bar, and Ballyshannon. Fifty-three farms, containing 11,000 acres; the old rent 981l. the new, 3807l. The extremes of date were from

1730 to 1770, or 40 years, the average of the period would be 20 years; but we may safely lay that in 30 years the rent is quadrupled. The courses of crops;

1. Potatoes. 2. Potatoes, reversing the lands, 3. Oats. 4. Oats. 5. Oats. 6. Lay out for weeds, &c.

1. Potatoes. 2. Potatoes. 3. Oats. 4. Oats. 5. Flax. 6. Oats. 7. Lay it down.

1. Potatoes. 2. Potatoes. 3. Barley. 4. Oats. 5. Oats. 6. Lay it out.

TILLAGE farms rise from nine acres subdivided, to large tracts in grazing ones. The manures are marle, lime-stone gravel, lime, bog, and sod ashes: the marle is white and light, found under bogs, and in banks; that in the banks, about Florence Court, is upon clay, or gravel, with springs under it, which makes the marle run into forms like cinders, petrified, and of a reddish cast, as if from vitriolic acid. The whole country abounds with sulphureous, and other mineral springs. Very little of this marle used; they use the lime-stone gravelly clay most, which gives them very good crops. The expence of lime, carriage included, is 8d. a barrel slacked; they lay sixty barrels an acre. They burn their mountain land, lime, and marle it, and set potatoes. In the year 1774, there were claimants for the Dublin Society's premiums, for 174 acres of bog reclaimed, and 120 of mountain. In 1773, 38 moor, and 120 bog. No draining done by the farmers, but much by the gentlemen.

POTA-

238 FLORENCE COURT.

POTATOES they plant all on lays; plant four barrels per acre, each barrel 6 cwt. they are measured by the peck, so piled up as to weigh 3 stone each: the price from 5s. to 16s. the barrel; average, 8s. No hiring of land merely for planting potatoes, but the farmers will let the cottars take a crop, if they dung. The produce, on an average, will be 32 barrels: thirty-two men will set an acre a day, with five children: when the potatoes appear, they shovel the furrows, which four men will do in a day: eight men will weed an acre in a day, and sixty-four men take them up.

EXPENCES.

	£.	s.	d.
Rent	-	-	0 10 0
County cess	-	-	0 0 4
Four barrels of seed	-	-	1 12 0
Planting, 32 men, at 8d. ditto, five children, at 5d.	-	-	1 3 5
Shoveling, four men, 8d.	-	-	0 2 8
Weeding, eight men, 8d.	-	-	0 5 4
Taking up, sixty-four men, 8d.	-	-	2 2 8
Sorting and picking, sixteen men, at 8d.	0	10	8
Drawing home, seven horses	-	-	0 7 0
Manuring, 200 loads, at 1d.	0	16	8
Drawing, four cars, 4 men, and 4 boys,	-	-	0 6 8
			<u>7 17 5</u>

PRODUCE.

Thirty-two barrels, at 8s.	-	-	12 16 0
Expences	-	-	<u>7 17 5</u>
			<u>4 18 7</u>

Of

Of oats, they sow two barrels an acre, and some more, and the crop twelve barrels. Of barley, they sow five bushels an acre, each eight gallons, the crop eight barrels. Much stubble, and potatoe land, in wet soils, are dug for corn, and it takes eighteen men to dig an acre a day. Much flax is sown, both on the land by its owner, and hired by cottars, who have no land fit for it; they hire a peck sowing, at two bushels and a half, or 2l. 14s. 2d. but the land is ploughed and harrowed into the bargain.

THEY spin all the flax they raise into three to five-hank yarn, on an average four. Many servants are hired for spinning, at 12s. a quarter, who do the business of the house, and spin a hank a day; if they do it for pay, it is 3d. a hank. A stone spins into 64 hanks; and when they have done it, it is sold at the markets and fairs: the tow they spin into two-hank yarn, which is wove into seven-hundred cloth, for home consumption. The weavers earn on an average, 10d. a day. Many cows are kept, and much butter made by every little farmer, which they put into tubs of $1\frac{1}{4}$ cwt. and if one has not cows enough to make it, they join. Two cows will rear two calves, feed the family, and make a tub, which sells for 40s. per cwt. on an average, or 2l. 10s. the two cows; a cow requires two acres for her summer food, or if they have it, more, and her winter's hay, 10s. A good cow, if no milk is taken, will make 7 lb. of butter a week; a middling one, four pounds and a half, and she will give twelve quarts a day. Many pigs kept, but no proportion observed to the number of cows; which are kept in the house at night in winter, but out all day. The calves suck the cows three months before weaning; many do not suck at all,

all, but are weaned in a few days. The management of the grazing farmers, is to buy in year olds, at 20s. on an average, keep them till they four years old, and sell them from 4l. to 10l. Some of these farmers occupy very large farms, even to 1000l. or 1500l. a year, but these are rare. Some buy in at three years old, and sell out at four; some at four, and sell at five; some at yearlings, and sell out at three, according to their lands. The common farmers buy in *mist* heifers, in november, and sell them in may, when they buy dry cows, which they sell fat in november, and make on the fattening 30s. a head, and on the *mist* heifers 16s. on an average. The little farmers that have lands fit for sheep, keep a few for cloathing their families, very many of them spinning wool enough, and weaving it for their own cloaths, petticoats, blankets, &c. also stuffs for the women. The girls are seen in summer in their striped linens and whites of their own making, and in winter in their woollen stuffs. They clip from an ewe, about 3lb. on an average.

GOATS were so common that every person had them from the ease of keeping, as they brouze only on bushes, and 20 were not reckoned a *sum*. This term should be explained, it implies a portion of land sufficient for a given stock; for instance, keeping a cow is a *sum*; a horse a *sum* and an half; 8 sheep; 6 ewes and 6 lambs; 3 year olds; a 2 year old, and a year old; a 3 year old; 20 geese; a barrel of potatoes setting; a peck of flax sowing; a barrel of corn sowing; and a cow's grafs; all these are *sums*. They plough all with horses, except gentlemen, 3 abreast, and do half an acre a day. Drawing by the tail not done these 7 years. The price per acre 10s. Of digging

digging by the acre 12s. and the crop 10s. an acre more; but they reckon that nothing in the world wears out the land more than digging. They lay their wet lands in narrow ridges of 3 furrows. The horses get no oats, yet they are not more than from 6s. to 12s. a sack, of 2 barrels measure; the barrel weighs 9 or 10 stone. Average price 9s. In hiring a little farm no attention given to what stock they have. Land sells at 21 years purchase, rack rent, which is lower than 4 or 5 years ago. Rents are fallen in 4 years 2s. an acre. Tythes compounded, small and great. The leases most common are 3 lives, or 31 years. *Tierney begs* are now done with. The people increase considerably, notwithstanding the emigrations, which were great till within these 2 years. Their circumstances vastly improved in 20 years; they are better fed, cloathed, and housed; more sober and industrious in every respect. Their food potatoes, oaten bread, and a bit of beef or bacon for winter. All keep cows, most of them pigs, and some poultry; many turkies and geese. No drinking tea. The religion some catholic, but a great many protestants. In 20 years there is a rise of 2d. a day in labour. In provisions there has been a considerable rise; 20 per cent. in meal. A sledge car costs 2s. 2d. Wheel car 1l. 14s. 1½d. A plough 11s. 4½d. A poor man's turf for a year will cost him 20s. Building a sod cabin 2l. Ditto of stone and thatch 15l.

AUGUST 18th, took the road by Swadling-bar for Farnham. That spaw of the north of Ireland is a little village, which appears to be but a poor residence for the numbers that resort to it. I took the Killishandra road, from thence to Farnham; in about 3

or 4 miles it leads along the edge of a lake, through a pretty wood which hangs to the water. Passed Mr. Henry's, a house very agreeably situated amidst woods, which spread to the right and left, and above it. Many lakes are in this country; I passed several large ones, which communicate with each other by a river. The road crosses a variety of bog and moory ground, perfectly improveable; lime cheap, but little seems to be done or doing. At Mr. Nesbit's enter a rich woodland country. The bishop of Kilmore's palace is on a considerable hill, yet sheltered by very fine trees; the country here is beautiful. I had been favoured with an invitation from the bishop, but he was then at Dublin. The woods of Farnham appear very finely from hence. Reached that place in the evening time enough for a ride with the Earl on the borders of his lakes. These are uncommonly beautiful; they are extensive, and have a shore extremely varied. On one side large thick hedge row trees, with meadows behind them; on the other a most noble range of hanging wood, which spreads on each side to a great distance, covering a bold shore, and to a considerable height, nor are they uniform in their outline; the hills over which they spread vary greatly; in some places presenting a continued sweep, in others breaking the line, and projecting into the lake. In one part the shore consists of grass inclosures, the hedges scattered with trees, and mounting upon the slopes, form a very fine scenery. Nothing can be more pleasing than the whole to the right of the lake; the meadows are of undulating lands that wave about in a variety of mild forms; a most pleasing scenery. These beautiful fields rise above the lake, which they command in some places, and in others retire from. Upon the whole Farnham is one
of

one of the finest places I have seen in Ireland ; the water, wood, and hill, are all in a great stile, and abound in a variety of capabilities.

CABBAGES Lord Farnham has cultivated three years ; in 1774, he had 4 acres manured with lime and earth, and of different sorts, flat Dutch, early Yorkshire, and green borecole, the seed was sown in the spring, and planted out in june, in rows 3 feet asunder, and horse-hoed clean ; found them for milch cows much better than turnips ; also for plough and fattening bullocks, that had the summer grass, throve very well on them ; lasted till the latter end of february ; the borecole longer ; the cabbages came to a good size, and the crop paid extremely well. Tares and beans were sown after them, and yielded a great produce.

IN 1775, six acres, manured with lime and ditch earth, well mixed, and at planting time, a little dung laid to each root ; the sorts the same as last year, with some red cabbage ; the crop very fine, many came to 16lb. used for the same purposes, and answered perfectly well. This year I viewed the crop, and a very fine one it is, clean, well horse-hoed, and promises to be a great produce. Upon the whole, Lord Farnham strongly recommends the culture from experience ; if he was to farm 40 years, he would never be without them for his cows, his plough bullocks, and for finishing those fat beasts which have had the summer's grass ; he thinks them far better than turnips ; that an acre will go farther, is easier cultivated, and got from the land with less damage. Nor is this opinion founded from any ignorance of turnips, his Lordship lived several years

in Norfolk, and attended to the immense advantages reaped in that county from their cultivation; he introduced them at Farnham the same time as cabbages; they are difficult to cultivate in Ireland, from the ignorance of the people in hoeing; he has drilled part, and had part broadcast; the drilled much the best, from their being so much better hoed; drills in furrows two feet asunder; I saw this year's crop, and found them very fine, clean, and promised to be good. Since this was written, Lord Farnham informs me, that in 1777, he had 14 Irish acres of turnips, which kept 50 working and fattening oxen, and dairy cows, besides 60 fat sheep; some of the oxen were sold fat from them, at from 17l. to 20l. each; the Lancashire breed that had been worked. The same year he had one acre of carrots, which he applied to feeding horses, and instead of giving 4 barrels of oats a week, they had only one, the rest being deducted on account of the roots. That in England, he fed his whole stud with them, nor would the horses touch an oat, while they could get carrots. Washing he found so expensive, that to lessen it, he put them in baskets in a stream, and this saved half; the soil not light. They were left in the ground, and drawn in the winter, as wanted.

LORD Farnham mentioned one circumstance of turnips, new to me, which was his feeding horses in Norfolk with them. His brood mares, and hacks, of which he had a great number, ran in the park at Hunston, with his bullocks, that were fattening on turnips, and they followed the carts as eagerly as the beasts; had no other food, and did perfectly well on them. His Lordship has made great improvements
in

in some of his lands by means of hollow draining. Very wet clays, over-run with rushes and other aquatic rubbish, he has converted into dry, sound, healthy pastures. The principal drains are filled with stones, the lesser ones with sod.

IN the breed of cattle he has been equally attentive, having been at a considerable expence to procure the very best Lancashires; and what is uncommon, without spoiling his dairy: for his cows give much milk. After falling off a good deal, they make 6lb. or 7lb. of butter each a week, besides supplying his numerous family with milk and cream. The bull-calves he rears for oxen, works till they are six years old, and then fattens them. Draft oxen he finds infinitely more beneficial than horses. The breed of strong horses he has also been very attentive to improve, buying a stallion of Mr. Bakewell, and has bred many, which sell readily at 25l. at 4 years old.

IN planting, Lord Farnham observed, that no tree grows speedily to so large a size as the silver fir. He has many great ones, planted by his father 40 years ago, in a wet clay soil on a rock; we measured some of them 12 feet in circumference at the ground, and one $7\frac{1}{2}$ at 5 feet high: this tree contains 76 feet of solid timber. What is very uncommon, he pointed out many oaks that are destroying the Scotch firs planted with them, having outgrown and rising completely above them. This I do not remember having noticed before. In the same plantation the beech generally beats the Scotch fir and the ash, though the latter suits the soil very well; indeed the beech, oak and silver fir are the capital trees. One use he has put the silver fir to, in which it answers perfectly,

which is boat-building; he has a boat built of it, which has lasted as well as if of the best oak. This is a hint which may prove of infinite use. I remember Mr. Mitford in Hampshire flooring his library with silver fir, fresh cut down, and the boards not contracting in the least: a quality very valuable in ship-building. He can sell Scotch fir out of his woods readily at 40s. a ton, even very poor trees.

The soil about Farnham is in general a good loam, from 4 to 10 inches deep, and under it a yellow or blue clay 2 feet deep, and under that a stony gravel, a quarry of lime-stone, or blue whin-stone. It is in general very wet; hollow drains lay it dry, if there is a fall. From Cavan to Belturbet it is dry, rough, rocky ground. From Killishandra to Knockwinn, dry gravel. From Cavan to Virginy, heathy, which yields good corn, with lime. Rents by new leases in general, 14s. to 20s. old ones 5s. to 10s. Cavan and Kilmore the highest. There is a great deal of bog and mountain, which with lakes, amount to half the county. Average rent about 6s. By another account I had it is 7s. 6d. Farms are generally about 100 acres, 50 to 100, and these relet, from 2 to 10 acres, to the poor people, who are cottars, and pay their high rent by labouring.

Courses:—1. Summer fallow. 2. Wheat. 3. Oats or barley. 4. Potatoes. 5. Wheat or barley.

1. Fallow. 2. Wheat. 3. Oats. 4. Oats. 5. Oats. 6. Oats. 7. Oats. 8. Oats. 9. Lay out for grafs. No seeds sown.

1. Potatoes.

1. Potatoes. 2. Potatoes. 3. Flax. 4. Oats. 5. Oats.
6. Oats. 7. Lay out for grafs.

THEY sow 4 bushels of wheat, or 20 stone an acre, and it yields 7 barrels. There is a good deal sown, and several flour mills in the country. Of barley they sow 4 bushels, and get 9 barrels, 16 stone to the barrel. They sow 8 bushels of oats, and get on an average 10 barrels. Of potatoes they plant 14 barrels to the acre, each 20 stone, and the crop is usually 60, and the price 5s. to 10s. Average 7s. 6d.

	£.	s.	d.
Rent	0	16	0
14 barrels	5	5	0
Planting, 36 men a day, at 1s. no board, 6d.			
with it	1	16	0
Shovelling, 8 men	0	8	0
Weeding, 10 boys, at 4d.	0	3	4
Taking up, 72 men	3	12	0
Manuring	1	0	0
	13	0	4

P R O D U C E.

60 barrels, at 7s. 6d.	22	10	0
Expences	13	0	4
Profit	9	9	8

But little lime used in the country, though in some places lime-stone is plentiful; the price is 6d. to 10d. the barrel slack. Much marle used about Ballyconnel and Killishandra; the white light sort from under

R 4

bogs:

bogs: they use it on heathy moors with success, for which purpose they use lime also. Before they plough it they lay the lime on, 150 barrels roach, and then either sow oats, or plant potatoes, and this perfectly kills all the heath, (*erica vulgaris*) and makes very fine land after it. Upon dry heathy ground at Ballyconnel, Mr. Swan, Lord Farnham's manager, has seen heaps of lime-stone laid on the heath near kilns, and has remarked, that where this stone was laid without burning or breaking, there the heath was completely killed, and a full crop of white clover (*trifolium repens*) came up, from the dust that had rubbed off; a strong proof that pounded lime-stone would be an admirable manure. The stock farmers, who, however, are not large ones, 150 acres being a good farm, are many of them in the succession business of buying in young cattle, and selling them out older without fattening; others on better lands, buy in dry cows in may, and sell them fat in november, making from 30s. to 40s. a head. But few fat bullocks, nor is it a great sheep country, nor any dairies; but all the little farmers and cottars, keep one, two, or three. If they pay for grazing a cow, it is 20s. to 30s. They keep also many pigs, from one to five in every house. They plough all with horses, three or four in a plough, and all abreast. Here let it be remarked, that *they very commonly plough and harrow with their horses* DRAWING BY THE TAIL: it is done every season. Nothing can put them beside this, and they insist, that take a horse, tired in traces, and put him to work by the tail, he will draw better: quite fresh again. Indignant reader; this is no jest of mine, but cruel, stubborn, barbarous truth. It is so all over Cavan.

LAND sells at 22 years purchase, rack rents: it has fallen two years. Rents have fallen within four or five years considerably; those that were taken seven or eight years ago, have fallen from 3s. to 8s. an acre. Tythes are generally hired by proctors, who view the farmers crops, and compound with them, making a considerable profit by it. They screw up the tenants and poor people very severely. The people are in general in much better circumstances than some years ago; more industrious, better fed, cloathed, and lodged: they increase very much. Potatoes, and milk and butter are their food, and oaten bread when the potatoes are not in season: scarce any flesh meat among them. The linen manufacture consists principally in spinning, which is universal all over the county for girls and women; but weaving is by no means general, nor does it increase in this neighbourhood. A woman, by spinning, will earn 4d. on an average. They do not raise enough to supply their wheels, for much is brought from Dublin. There are four bleach-greens in these parts, at Ballyconnel, Ballyna, Scrabby, and Ardvagh. Building a mud cabin 4l. 4s. ditto of stone, lime and slate, 30l. ditching, six feet wide and five deep, 1s. 1d. a drain, two feet deep and three wide, 2d. to 3d. a perch. Threshing wheat 1s. a barrel. Oats 7d. Barley 8d. Farming man's wages 5l. A lad 3l. to 4l. A woman in summer 6d. a day. A wheeled car costs 1l. 10s. A plough 9s. A pair of harrows 12s.

Before I quit Farnham, let me give upon review the expences, produce and profit of an acre of flax, as I may now consider myself as entirely out of the
linen

linen country. Upon an average of all the North, from my first entering it at Market-hill, the following table is the medium of every article.

ONE ACRE FLAX EXPENCES.

	£.	s.	d.
Rent from 8s. to 2l. 12s. - - -	1	6	0
Tythe from 11d. to 9s. - - -	0	4	8
Seed from 1l. 4s. to 3l. - - -	2	2	0
Sowing - - - - -	0	0	6
Ploughing from 5s. to 10s. 10d. - -	0	7	8
Clods and stones from 1s. 4d. to 5s. 4d.	0	2	4
Weeding from 2s. to 8s. - - -	0	4	0
Pulling from 4s. to 13s. 6d. - - -	0	7	0
Rippling - - - - -	0	6	7
Watering from 1s. to 16s. - - -	0	5	7
Taking out and grafting from 2s. to 11s.	0	5	8
Lifting from 2s. to 8s. - - -	0	4	4
Drying - - - - -	0	8	0
Beetling - - - - -	0	15	0
Scutching from 1l. 1s. to 5l. - - -	2	10	6
	<hr/>		
	9	9	10
	<hr/>		

PRODUCE.

36 stone scutched at 8s. 6d. - -	15	6	0
Expences - - - - -	9	9	10
	<hr/>		
Profit - - - - -	5	16	2
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Heckling - - - - -	1	10	5

AUGUST 20th, took my leave of Farnham, and passed by Cavan to Granard; got in that neighbourhood,

hood, into a fine tract of dry, sound, gravelly land, which lets, on an average, at 11. 1s. through the barony: use it very much for fattening bullocks, but cows chiefly, and a few sheep. The farms are in general large, many about 200 acres. It is all a lime-stone gravel. In the town of Granard, is one clofe of 50 acres, called Granard Kiln, immediately under a mound of earth, an antient Danish intrenchment, which regularly supports 50 fat cows, 100 sheep, 6 horses, and is reckoned the best spot in the county, worth 35s. an acre. The country, all the way from Cavan to near Carrickglass, within two miles of Longford, is exceedingly bare of trees.

REACHED Ballynogh, the seat of W. G. Newcomen, Esq; who has many trees, and well planted hedge-rows, about him; he favoured me with the following particulars: about that neighbourhood, lands let at 13s. 6d. from 7s. to 20s. The rent of the whole county of Longford may be reckoned at 12s. an acre, on an average, of all that is cultivated, and one-sixth part bog and mountain, which yields no rent. The soil is in general, a tolerable vegetable mould on the surface, for three or four inches deep; under that, two-inch thick of blue clay: which retains water under that yellow clay for two or three feet, and then every where lime-stone gravel. This is generally the soil of the whole county, except the barony of Granard, and a part called the Callaw, which is a light lime-stone rocky ground, producing fine wheat, and good sheep.

LEITRIM lets at 4s. on an average. In Leitrim there are many mountain improvements, by setting fire to the heath in summer, liming it the following spring;

spring; they marle upon that, and then plant potatoes, get great crops, and make fine land of it. The size of farms commonly to 5 or 600 acres, but in general about 100 acres, with many small ones: *Rundale*, or the hiring of farms in partnership, is very common; three or four families will take 100 acres. A great part of the country let to tenants, who do not occupy, but re-let at advanced rents to the poor people. The course of crops is: 1. Potatoes. 2. Potatoes. 3. Bere. 4. Barley, or oats. 5. Oats. 6. Lay out for weeds, four or five years.

1. Potatoes. 2. Bere. 3. Oats. 4. Oats. 5. Lay it out.

1. Potatoes. 2. Flax. 3. Bere. 4. Oats. 5. Oats.

Of potatoes, they sow four barrels to an acre, each 64 stone, and get 40 in return; the price 5s. to 14s. average 8s. Of bere they sow 20 stone, and get 10 barrels. Of barley ditto, get 12. Oats they sow 2 barrels, at 14 stone, and get 15. The waste mountains are improving very fast, by families hiring spots of heath, building their cabbins on them, and improving them under a rent of 5s. to 8s. an acre. They bring it all in by potatoes, but use no lime, though they could have it cheap, for lime-stone is on the spot, and plenty of turf to burn it with; this is the case with Cornclanew, near Carrick Glas. White marle is found under the bogs, but scarce any of it used. The system of cattle most common, is to buy yearlings, at 40s. and keep them till 3 or 4 years old, and sell them lean at 5l. to 5l. 10s. buying in some every year, and selling out the same number. Fattening cows is also very common, bought in

in in may, at 3l. to 5l. and sold out in october, at 30s. to 40s. profit. It is not reckoned bad land, if three acres fatten two. No cows for dairies, they are kept only by poor people. Ploughing all with horses, a pair a-breast, but no drawing by the tail; this practice they utterly deny here. Land sells rack-rent at $18\frac{1}{2}$ years purchase. Let for ever and well secured, 20 years purchase. The price has fallen within four years; rents have also fallen three shillings in the pound in six years, and are at present falling, from the low prices of grain. Tythes taken generally by the proctors, who are very civil to gentlemen, but exceedingly cruel to the poor. The country evidently increases very much in population: the people are in better circumstances than they were 20 years ago, better cloathed, better fed, and more industrious, yet at present it is found, and I have had the same remark made to me, at many other places, that they only work to eat, and when provisions are plenty, will totally idle away so much of their time, that there is scarce any such thing as getting work done. The religion is principally roman; no emigrations. There is a better yeomanry than is common in Ireland. Many farmers, of from 100 to 250 acres. Rent of a cabbin and garden, 30s. A cow's grass, 1l. 10s. All the cottars have some land: all keep cows, and many pigs and geese. I remarked for some time of late, that the geese are plucked, and upon enquiry, that every goose yielded three farthings or a halfpenny in feathers per annum. These Irishmen are disciples of Columella. They make a dreadful ragged figure. The poor live upon potatoes and milk, it is their regular diet, very little oat bread being used, and no flesh-meat at all, except on an Easter sunday, or Christmas-day. Their potatoes last them through
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the year; all winter long only potatoes and salt. Firing costs them 30s. a year for labour in the bogs. Building a mud cabin, 4l. Ditto of stone and lime, 37 feet by 15, 17l. Another, 30 feet by 14, 11l. These are the measures of two, which Mr. Newcomen has built at that expence. The linen manufacture spreads through Longford. It has increased considerably, from a remarkable circumstance which happened three years ago, which was a gentleman unknown, giving 500l. to be distributed to poor weavers, in loans of 5l. each, to be repaid at 25s. a quarter, to enable them to carry on their business with more ease. This had great effects. There are three bleach greens in the county; the weaving increases; spinning is universal throughout all the cabins, and likewise through all the county of Leitrim, but there is not so much weaving as in Longford.

AUGUST 21st, to Strokestown, the seat of Thomas Mahon, Esq; Passed through Longford, a cheerless country, over an amazing quantity of bog, and all improvable; a great one in particular, on the banks of the Shannon, two miles over, and I found it reached many miles beyond Laneshro'. Mr. Mahon has 5000 acres of it. A great fall lies every way, a good road is made over it, and lime is burnt on the edges for 3d. a barrel roach; besides lime, they have lime-stone, gravel and sand every where, which laid on the bog, drained or not drained, produces a sheet of white clover; what a field is this for improvement, yet nothing done! Crossed the Shannon, which is here a considerable river, and entered Connaught. The first appearance of Strokestown woods are very noble, from a hill which looks down on them; they are very extensive, of a great growth,
and

and give a richness to the view, which is a perfect contrast to the dreary scene I had passed. Mr. Mahon neglected no means of having me well informed in the following minutes. Land about Strokestown sets at 25s. The average of the whole county is 11s. including bog; mountain there is very little. The county of Leitrim, 2s. on an average. A great part of Roscommon, particularly from Athlone to Boyle, 30 miles long, and 10 broad, is sheep-walk, and lets on an average, 12s. an acre. It is generally walk, only patches of potatoes and corn for the workmen. The soil of it lime-stone. These sheep-walks I had heard so much of, that I was eager in my enquiries concerning them; they were some years ago divided into much larger farms than at present, for there were men who had 20,000 sheep, whereas now 6 or 7000 is the greatest flock. The farms rise to 3000 acres, few under 4 or 500. They stock commonly at the rate of two sheep an acre, and reckon the profit to be lamb and wool, the lamb sold in August at 12s. and 5lb. of wool from the ewe, at better than 1s. per lb. or 17s. a head.

THEY feed them all the year on grass, having no turnips; but in severe weather give them hay. They have much other cattle with them, such as yearlings, two-year olds, three-year olds, &c. selling them four-year olds to such as want them for fattening. In wet years they are in some places troubled with the rot, but it is not at all common. These sheep-walks decrease as the people become more numerous: parts are ploughed up, but very few instances of sheep gaining upon tillage. The cottars are never suffered to keep sheep, but have cows grazed for them, as in other parts.

THIS

THIS part of the country is not populous, but more so than it was. These sheep-walks are here reckoned much better than the Curragh of Kildare. They are not regular in flocks of ewes, but keep a various stock. A man that has 1000 sheep will have 400 ewes, 200 yearlings having sold 200 of the worst lambs, 200 two-year olds, and 200 three-year old wethers, which he sells fat; consequently his annual sale will be 200 lambs, 200 fat wethers, and 100 of the worst old ewes.

	£.	s.	d.
200 lambs, casualties and missing reducing them to 150, at 10s. - - -	75	0	0
200 fat wethers, at 20s. - - -	200	0	0
100 old ewes, 10s - - -	50	0	0
Wool, 1000 sheep, 4s. - - -	200	0	0
	<hr/>		
	525	0	0

THE country is divided into inclosures by stone walls generally, so that one shepherd is all that is kept to a flock. The wool goes mostly to Corke, where it is spun into worsted and exported; this is the account I had in this country. All these sheepmasters mix, as I before observed, other stock with their flocks; besides 2 sheep per acre, they will keep at the rate of 40 yearlings, and 2 or 3 year olds to every 100 acres. The soil is brown loam on limestone gravel. Farms about Strokestown consist generally of *Rundale* ones; upon 2 or 300 acres, there will be 10 to 15 families, nor is it thought here a bad system. Much the greatest part of the land is grass; but what they have in tillage they arrange in the following course:

1. Po-

1. Potatoes. 2. Potatoes. 3. Flax. 4. Barley.
5. Oats. 6. Lay out for 6 or 7 years. None of
them sow grass seeds.

1. Potatoes. 2. Potatoes. 3. Wheat. 4. Oats.
5. Oats. 6. Lay out.

MUCH land is let for grass potatoes, from 5l. 5s. to 4l. and 4l. 4s. afterwards for a crop of flax. They plant 4 barrels, at 5 $\frac{1}{4}$ cwt. each; and they get about 50 barrels an acre, the price from 4s. to 15s. average 8s. To sell them growing, 10l. is reckoned a high price. Of flax seed they sow 11 pecks per acre; an acre sold *on the foot* (that is as it grows) is worth 8l. on an average. They commonly sow a barrel, or 20 stone of wheat to the acre. Mr. Mahon only 12. They get 6 barrels in return. They sow 2 barrels of barley, and get 9. Of oats they sow 2 barrels, and get 10. Lime-stone gravel the great manure; they put 1500 load, at 5 cwt. each, on an acre, and it costs 1l. or 1l. 1s. It does best on strong land, especially free-stone; it will last 7 years, in which time they will take 7 crops. Of lime they use no great quantity; but when they do, lay 50 barrels an acre. Mr. Mahon compared different quantities of it, from 50 to 100, and the more he laid the better, but the lime-stone gravel much superior. About Strokestown, Mr. Mahon can have turf in one hole and lime-stone in another, and he burns it in arched kilns, with several eyes, and 200 barrels of lime to each eye; it burns in 60 hours, each eye takes 10 clamps of turf, at 4s. including drawing, each clamp 30 kishes. Quarrying, breaking, burning, filling, building and emptying, 2l. an eye, or 4l. for 200 barrels roach, or about 5d. a barrel. They have

both white and grey marle under the bogs, the light sort, but the gravel and sandy lime-stone is so much better that nobody uses it. They plough with 4 horses, 2 and 2 a-breast. Mr. Mahon, with 2 a-breast by boys, taught by a ploughman he had from Bury in Suffolk, who by ploughing in that manner, without a driver and with a Suffolk plough, did as much in one day as the country people in three; by teaching lads for Mr. Mahon and his neighbours, he was the means of very much improving the tillage of the neighbourhood. Land sells at 21 and 22 years purchase: it let within 3 or 4 years at 5 per cent. less than 15 years ago, but it is now rising. Tythes are sometimes taken in kind, but more commonly let to the farmer. Wheat 8s. Flax 8s. Oats 3s. Barley and bere 8s. Much land let to those who do not occupy it, but who re-let it to others at an advanced rent.

THE linen manufacture of spinning is spread not only through Roscommon, but all Connaught, and in Roscommon they raise flax enough for their own use; weaving is creeping in by degrees, about a twentieth part of their yarn is woven in the country, into linens of 10 or 12 hundred, and sheetings half quarter-wide, at 10d. to 1s. 4½d. a yard. The yarn spun is mostly 2 hank yarn. A woman will spin 6 hanks a week, of 4 hank yarn, at 4d. a hank, 4d. a day by 4 hank yarn, and 3d. a day by 2 hank yarn. The people are upon the increase, but not much; they are better fed than 20 years ago, and better cloathed, but not more industrious, or better housed. They live on potatoes and milk, and butter. Scarce any but what keeps a cow or two; they are not allowed to keep pigs in general, but many will a tolerable quantity

city of poultry. The rent of 1 acre, and a house, is 20s. the grass of a cow, 1l. 2s. The men dig turf, and plant potatoes, and work for their landlord, and the women pay the rent by spinning. There has been a great rise in prices, butter one-third, beef one-fourth, poultry one-half. Price of a car 1l. 14s. a plough 10s. 6d. Oak timber 3l. 3s. to 5l. a ton, ash ditto 2l. to 3l. elm ditto. A mud cabin 5l. 5s. ditto stone and slate 15l. A mason's perch of a wall 4s. Near Castle Plunket, a bog of Mr. Arthur Irvin's, let at 1l. 2s. 9d. a perch, 160l. per acre, it is 21 deep of fine turf.

Mr. Mahon's woods are all of his own planting, and having besides 100 acres, a vast number of hedge-rows well planted round many inclosures, which join those woods, they all take the appearance of uniting into one great range of plantations, spreading on each side the house. It is one of the strongest instances of a fine shade being speedily formed in the midst of a bleak country that I have any where met with, being a perfect contrast to all the neighbourhood. He began 35 years ago with ash, which trees are now 70 to 80 feet high.

BUT the generality of the plantations are from 17 to 30 years old, and are for that age, I think, the finest woods I ever saw; they consist of ash, oak, English and French elm, beech, maple, spruce, Scotch and silver fir, larch, &c. Of all these the beech are the finest trees, and of the greatest growth, many of them 3 and 4 feet in circumference, and 30 to 40 feet high. The bark is bright and beautiful, and every tree gives the strongest signs of agreeing perfectly with the soil. One very particular cir-

cumstance of this tree, Mr. Mahon tried, which deserves the attention of those who have deer; he made a plantation of all sorts of forest trees in his park, in order to see how far the deer would let them escape: they eat up every tree he planted, the beech alone excepted, not one of which did they touch either leaf, branch, or bark; it was 18 years ago, and they are all now as fine trees as ever were seen. Next to the beech, the largest tree is the silver fir, of which he has many in 20 years, of a great size. After this the oak, which thrives admirably well; then the English elm. But the tree which outgrows these and every other, he has planted but 5 years, it is the Lombardy poplar. The growth almost exceeds belief! In 5 years they are 35 feet high, and I saw many of 2 years old 12 feet. His hedge-rows, Mr. Mahon has planted with uncommon attention, the ditches are single, with a row of trees among or above the quick, another row on the back of the bank, and a third on the brow of the ditch; these, with a lofty growth of the quick, form so thick a shelter, that one cannot see through it, so that almost every inclosure has the appearance of a field, surrounded by a wood. Of these inclosures thus planted, he has 16 from 6 to 20 acres each. Mr. Mahon's breed of both cattle and sheep are improved by a bull and a tup, which he bought of Mr. Bakewell; and has bred from them with great success. He is in the succession system, which is, buying in a certain number of yearlings every year, and killing the same number fat, from 5 to 7 years old: but in common they are only kept till 4 or 5.

At Clonells, near Castlereagh, lives O'Connor, the direct descendant of Roderick O'Connor, who was king

king of Connaught 700 years ago; there is a monument of him in Roscommon church, with his scepter, &c. I was told as a certainty, that this family were here long before the coming of the Milesians. The possessions formerly so great are reduced to 3 or 400l. a year, the family having fared in the revolutions of so many ages, much worse than the O'Neils and O'Briens. The common people pay him the greatest respect, and send him presents of cattle, &c. upon various occasions. They consider him as the prince of a people involved in one common ruin.

ANOTHER great family in Connaught is Macdermot, who calls himself prince of Coolavin; he lives at Coolavin in Sligo, and though he has not above 100l. a year, will not admit his children to sit down in his presence. This was certainly the case with his father, and some assured me even with the present chief. Lord Kingsborough, Mr. Ponsonby, Mr. O'Hara, Mr. Sandford, &c. came to see him, and his address was curious: "*O'Hara! you are welcome. Sandford, I am glad to see your mother's son: (his mother was an O'Brien). As to the rest of ye, come in as ye can.*" Mr. O'Hara, of Nymphsfield, is in possession of a considerable estate in Sligo, which is the remains of great possessions they had in that country: he is one of the few descendants of the Milesian race.

SINCE the bounty on the inland carriage of corn to Dublin, much is sent from the county of Roscommon, and even farther from Sligo and Mayo; and this business of carriage was mentioned to me as a proof of the great excellency of the Irish car,

They carry from 9cwt. to 12cwt. with a single horse that is not worth above 5l. The distance from hence is 67 miles, and they are nine days going and returning; they come back loaded. For 16s. 3d. they will carry a load of any thing to Dublin without the advantage of the bounty.

AUGUST 23d, leave Strokestown, and take the road to Elphin, through a country principally sheep-walks; the soil dry sound gravel, and stoney land. Waited on the bishop, who was so obliging as to procure me several valuable particulars concerning the neighbourhood,

His Lordship shewed me the particular of his bishoprick, which consists of very large tracts of land both in Roscommon and Sligo, from this the rental appears. The total of his particular are, 18,223 profitable acres, 5,382 unprofitable. Rent 1,742l. Fines 1,216l. 23,000 acres, let for 1,742l. must necessarily be very moderate. Respecting sheep-walks, the following is an account of what a farm of 1000 acres is on an average; 2000 sheep kept worth 14s. 100 bullocks, that is, 60 two year olds, and 40 three year olds.

ANNUAL SALE.

	£.	s.	d.
500 wethers, at 20s. to 24s. -	550	0	0
100 culled ewes, at 8s. -	40	0	0
2000 fleeces, 5lb. at 10d. average -	416	0	0
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That is 10s. a head -	1006	0	0
Profit on 100 young cattle -	200	0	0
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	1206	0	0
	Brought		

	£.	s.	d.
Brought forward - - -	1206	0	0
20 acres grafs potatoes let at 3l. 3s. to 4l. say - - -	70	0	0
10 acres meadow sold at 50s. - - -	25	0	0
5 fillies and colts, at 6l. - - -	30	0	0
30 acres of wheat, bere and oats, at 5l. - - -	150	0	0
10 acres flax let at 3l. to 4l. - - -	35	0	0
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	1516	0	0

EXPENCES.

Rent - - - - -	750	0	0
Cefs - - - - -	30	0	0
10 men - - - - -	80	0	0
Wear and tear - - - - -	10	0	0
Interest 2000l. stock, at 6 per cent. - - -	120	0	0
Tythe - - - - -	40	0	0
Losses on stock 3s. a head on sheep - - -	100	0	0
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	1130	0	0
	<hr/>		
Produce - - - - -	1516	0	0
Expences - - - - -	1130	0	0
	<hr/>		
Profit - - - - -	386	0	0

FARMS in general are from 100 to 1500 acres ; and rents from 12s. to 15s. an acre. Ten years ago flocks amounted to 9 or 10,000, but now not above 2000. Average rent of the whole county 10s. From Elphin towards Kingston, especially near the latter, the soil ranks among the finest I have any where seen. It is a dry sound mellow sandy loam, deep and

very rich, the herbage excellent. It is generally under sheep, with many bullocks.

To Lord Kingston's, to whom I had a letter, but unfortunately for me he was at Spaw. Walked down to Longford hill, to view the lake; it is one of the most delicious scenes I ever beheld, the extent five miles by four, filling the bottom of a gentle valley almost of a circular form, bounded very boldly by the mountains. Those to the left rise in a noble slope; they lower rather in front, and let in a view of Strand mountain, near Sligo, above 20 miles off. To the right, you look over a small part of a bog to a large extent of cultivated hill, with the blue mountains beyond. Were this little piece of bog planted, the view would be more complete; the hill on which you stand has a foliage of well-grown trees, which form the southern shore. You look down on six islands, all wooded, and on a fine promontory to the left, which shoots far into the lake. Nothing can be more pleasing than their uncommon variety; the first is small, (Rock island) tufted with trees, under the shade of which is an ancient building, once the residence of Macdermot. The next a mixture of lawn and wood; the third, which appears to join this, is of a darker shade, yet not so thick but you see the bright lawn under the trees. House island is one fine thick wood, which admits not a gleam of light, a contrast to the silver bosom of the lake. Church island is at a greater distance; this is also a clump, and rises boldly. Rook island is of wood; it opens in the center, and shews a lawn with a building on it. It is impossible to imagine a more pleasing and chearful scene. Passed the chapel to Smithfield-hill, which is a fine rising ground,

ground, quite surrounded with plantations; from hence the view is changed; here the promontory appears very bold, and over its neck you see another wooded island, in a fine situation. Nothing can be more picturesque than Rock-island, its ruin overhung with ivy. The others assume fresh and varied outlines, and form upon the whole one of the most luxuriant scenes I have met with.

THE views of the lake and environs are pleasing as you go to Boyle; the woods unite into a large mass, and contrast the bright sheet of water with their dark shades.

THE lands about Kingston are very fine, a rich, dry, mellow, sandy loam, the finest soil that I have seen in Ireland, all grass, and covered with very fine bullocks, cows, and sheep. The farms rise to 500 acres, and are generally in divisions, parted by stone walls, for oxen, cows, young cattle, and sheep separate. Some of the lands will carry an ox and a wether per acre; rents 15s. to 20s.

DINED at Boyle, and took the road to Ballymoat; crossed an immense mountain bog, where I stopped and made inquiries; found that it was ten miles long, and three and a half over, containing 35 square miles; that lime-stone quarries were around, and in it, and lime-stone gravel in many places to be found, and used in the lands that join it: in addition to this I may add, that there is a great road crossing it. 35 miles are 22,400 acres. What an immense field of improvement! nothing would be easier than to drain it, vast tracts of land have such a fall, that not a drop of water could remain. These hilly bogs
are

are extremely different from any I have seen in England. In the moors in the North, the hills and mountains are all covered with heath, like the Irish bogs, but they are of various soils, gravel, shingle, moor, &c. and boggy only in spots, but the Irish bog hills are all pure bog to a great depth, without the least variation of soil; and a bog being of a hilly form, is a proof that it is a growing vegetable mass, and not owing merely to stagnant water. Sir Laurence Dundas is the principal proprietor of this.

REACHED Ballymoat in the evening, the residence of the Hon. Mr. Fitzmaurice, where I expected great pleasure in viewing a manufactory, of which I heard much since I came to Ireland. He was so kind as to give me the following account of it, in the most liberal manner:

TWENTY years ago the late Lord Shelburne came to Ballymoat, a wild uncultivated region, without industry or civility, and the people all roman catholics, without an atom of a manufactory, not even spinning. In order to change this state of things, his Lordship contracted with people in the North, to bring protestant weavers, and establish a manufactory, as the only means of making the change he wished; this was done, but falling into the hands of rascals, he lost 5000l. by the business, with only 17 protestant families, and 26 or 27 looms established. Upon his death, Lady Shelburne wished to carry his scheme into execution, and to do it, gave much encouragement to Mr. Wakefield, the great Irish factor in London, by granting advantageous leases, under the contract of building and colonizing, by weavers from the North, and carrying on the manufactory. He found about 20 looms working upon their own account,

count, and made a considerable progress in this for five years, raising several buildings, cottages for the weavers, and was going on as well as the variety of his business would admit, employing 60 looms. He then died, when a stand was made to all the works for a year, in which every thing went much to ruin. Lady Shelburne then employed a new manager to carry on the manufacture upon his own account, giving him very profitable grants of lands, to encourage him to do it with spirit. He continued for five years, employing 60 looms also; but his circumstances failing, a fresh stop was put to the work.

THEN it was that Mr. Fitzmaurice, in the year 1774, determined to exert himself in pushing on a manufactory, which promised to be of such essential service to the whole country. To do this with effect, he saw that it was necessary to take it entirely into his own hands. He could lend money to the manager to enable him to go on, but that would be at best hazardous, and could never do it in the complete manner in which he wished to establish it. In this period of consideration, Mr. Fitzmaurice was advised by his friends, never to engage in so complex a business as a manufacture, in which he must of necessity become a merchant; also engage in all the hazard, irksomeness, &c. of commerce, so totally different from his birth, education, ideas and pursuits; but tired with the inactivity of common life, he determined not only to turn manufacturer, but to carry on the business in the most spirited and vigorous manner that was possible. In the first place he took every means of making himself a complete master of the business; he went through various manufactures, inquired into the minutiae, and took every measure to know it to the

the bottom. This he did so repeatedly, and with such attention in the whole progress, from spinning to bleaching, and selling, that he became as thorough a master of it, as an experienced manager; he has woven linen, and done every part of the business with his own hands. As he determined to have the works complete, he took Mr. Stansfield, the engineer, so well known for his improved saw-mills, into his pay; he sent him over to Ballymoat, in the winter of 1774, in order to erect the machinery of a bleach-mill, upon the very best construction; he went to all the great mills in the North of Ireland to inspect them, to remark their deficiencies, that they might be improved in the mills he intended to erect. This knowledge being gained the work was begun, and as water was necessary, a great basin was formed, by a dam across a valley, by which means 34 acres were flooded, to serve as a reservoir for dry seasons, to secure plenty at all times. All the machinery of the mill is perfectly well constructed, and worthy of the artist who formed it; in general it is upon the common principle of other bleach-mills, only executed in a manner much superior to any other in Ireland, but in several particulars it is much improved; a washing-wheel, on the new construction used in England, is added; beetlers are improved in their motion on the cylinder, by giving something more of time to their rebound; the motion given to the rubbing boards is in a manner different from the common, and in general, the wheels are all so proportioned, that every operation may go on in the full velocity, without one part being stopped at all upon account of another, which is not generally the case; the water wheel is also formed to work with the least quantity of

of water possible; all the works going on with no larger quantity than will flow through a pipe of a nine-inch bore. Here are two beetling cylinders, three pair of rubbing-boards, a pair of stocks, a washing wheel, two large coppers for boiling or bucking, a room for drying, and another for folding, the whole contained in a well-erected edifice, 81 feet long, by 28 feet broad, and 17 high.

In the first year, 1774, not having a bleach-green, he only kept the looms going, to sell the linens green; 65 in that year worked 1730 webs, each 56 yards long and 7-8ths broad, on an average ten-hundred linen. In 1775, the number of looms was 80, and they worked 2110 pieces of the same linen. At present the number is 90, and preparations are made for there being 120 by this time twelvemonth, and Mr. Fitzmaurice has no doubt of having 300 in two years time. In establishing and carrying on this manufactory, the increase has been by weavers from the North, for whom he builds houses as fast as he can, and has many more applying than he can supply by building. They come with nothing but their families, and Mr. Fitzmaurice fixes them in houses, finds them a loom, and every thing necessary for their work, and employs them upon his own account, their rent for their house and garden being proportioned to their idleness.

The full rent he fixes for a stone and slate cottage, that costs him 50*l.* is 40*s.* if the weaver is idle; but in proportion to the number of webs he weaves his rent is lowered; besides which encouragement, he gives premiums for the best weaving and spinning throughout the manufactory.

IN

IN order to shew how far this system of employment is of importance to the neighbourhood, I may observe that the 80 looms, besides the 80 weavers, employed 80 persons more, who are usually women; quilling, warping, and winding; the quilling by children: in all, 80 men, 80 women, and 40 children.

THE 2110 pieces worked last year consumed 132,930 hanks of yarn, at 63 to each, allowing for accident and waste, which is spun here, and as a woman spins a hank a day (it is three-hank yarn) it employs at 300 days to the year, 443 women.

I SHOULD be particular in remarking, that all the houses he built for the weavers, have no more than half a rood of potatoe-garden to them, Mr. Fitzmaurice finding them a cow's grass, for which they pay 30s. He does this because he would not wish to have them farmers, which he thinks does not at all agree with their business of weaving. He has planned much greater works; has procured a patent for a market, which he designs to establish; to build a large handsome market-house, at an expence of 1000l. to pull down all the old cabbins in the town, and rebuild them in regular streets, of good houses, for weavers and mechanics. To convert a large house, at present used in the manufactory, into a handsome inn; a large house for a master weaver, and lastly, a mansion-house for himself in the stile of a castle, and suitable to the antient ruins, situation, and grounds. For these purposes, he has employed Mr. Paine, the architect, to give designs, and execute the whole. These are great works for the ornament and improvement

improvement of a country, and united with the flourishing progress of the manufactory, promise to make Ballymoat a considerable place. Too much praise cannot be given to a man, who, in the prime of life, when pleasure alone usually takes the lead, should turn his attention and expence to objects of such national utility and importance, which have for their aim, the well-being, happiness, and support of a whole neighbourhood.

It may be of use to inform those, who may entertain thoughts of a similar establishment, what the expence of these works have been, with this view I requested the particulars of Mr. Fitzmaurice, and they are as follow: forming the reservoir of water, the bleach-mill, a green, a boiling-house, a house for the master bleacher, and three or four houses for bleachers, cost in the whole 1500l. of this 160l. was for forming the reservoir. A house of stone and slate sufficient to contain a family, and four looms, costs 55l. and the four looms 8l. 8s.

In order to shew the full expence of establishing a manufactory, that employs 100 looms, the following particulars will be of use; they will also shew, that views of private profit have not actuated Mr. Fitzmaurice to this undertaking, as it is nothing but a very skilful management, or fortunate prices that can make it advantageous to a gentleman, whose views ought to be more distant, to the increase of useful population, and thereby of the rental of his estate.

The

272 B A L L Y M O A T.

	£.	s.	d.
The bleach-mill and green - - -	1500	0	0
25 cottages for the 100 looms, at 55l. -	1375	0	0
Other building for a clerk and master weaver - - - - -	200	0	0
100 looms, yard-wide or under - - -	210	0	0
<hr/>			
Total buildings, &c. - - - - -	3285	0	0
Interest of that sum, at 6 per cent. for a year - - - - -	197	0	0
163,800 hanks of yarn, at 63 to each piece, and 26 pieces to each loom, per annum, at 5½d. per hank -	3924	7	6
Purging the yarn, one halfpenny a hank -	341	5	0
N. B. It is now 6½d. and even raising, but that is very high. 5d. is a low price.			
One per cent. on ditto, 3900 for carriage and expences - - - - -	39	0	0
Pay of 100 weavers at 3½d. a yard for a ten-hundred cloth, or 146. 7d. a piece, say 15s. as they run to 51 yards, 2637 - - - - -	1977	15	0
Pay of a master weaver - 0 - -	100	0	0
Pay of a yarn-buyer and porter - -	25	0	0
Needle-marking 2637 pieces, at 1d. each -	10	19	9
As to bleaching, the fairest way, is to suppose, that the expence of it amounts to as much as the bleachers' charge, which is 1½d. a yard, this includes the bleachers' profit,			
6s. 4½d. a piece - - - - -	840	16	0
<hr/>			
Carried over - - - - -	10,740	17	3

Brought

	£.	s.	d.
Brought forward - - -	10,740	17	3
Package 5s. per pack, of 100 pieces, each 25 yards - - -	13	4	0
Carriage to Dublin 20s. a pack of 100	53	0	0
Commission to the Dublin factor 2 per cent. on 5274 pieces, at 1s. 3d. a yard, or 11. 7s. 1d. a piece, or 8239l. two per cent. on this sum - - -	164	15	0
N. B. On fine goods, 5 per cent. ow- ing to the tediousness of selling them, and 5 months credit instead of 2.			
Porterage in Dublin, 2s. 6d. a pack - -	6	10	0
	<hr/> 10,978 6 3 <hr/>		

ANNUAL EXPENCE.

	£.	s.	d.
Interest of the first stock -	197	0	0
Yarn - - -	3924	7	6
Purging and carriage -	380	0	0
Weavers - - -	1977	15	0
Overseers - - -	125	0	0
Marking - - -	10	19	9
Bleaching - - -	840	10	0
Package and carriage -	66	4	0
Commission - - -	164	0	0
Porterage - - -	6	10	0
	<hr/> 7692 6 3 <hr/>		

274 B A L L Y M O A T.

	£.	s.	d.
As the money is turned just twice a year, half this is to be charged as stock or	3846	0	0
Buildings - - - - -	3285	0	0
Therefore the capital for the under- taking is - - - - -	7131	0	0
Interest on that, at 6 per cent. - -	427	0	0
Sundry expences on 5274 pieces - -	7692	0	0
	8119	0	0

PRODUCE.

5274 pieces, at 1l. 11s. 3d. - -	8239	0	0
Expences - - - - -	8119	0	0
Remains - - - - -	120	0	0

HENCE there appears to be some profit on this account, besides all that is on the bleaching; also the rent of 25 houses, which may be reckoned at rool. a year.

BUT if they sell only at 1l. 7s. 1d. the account would then be :

	£.	s.	d.
Expences - - - - -	8119	0	0
Produce 5274, at 27s. 1d. - -	7141	0	0
Loss - - - - -	978	0	0

LET

LET me observe upon this, that such accounts are never accurate, and they should be taken rather for framing general, than particular ideas. At first sight, it might be thought, that proving too much in the little or no profit of such an undertaking, is proving nothing, as the trade could never be carried on; but this would not be a just conclusion. The linen business is not conducted thus; the drapers, who are bleachers, purchase the linen, not weave it on their account; and here lies probably much of their profit, they take advantage of the variation of *times*, to use a commercial term, and often get the linen under its fair value; they have the opportunity of taking advantage of all temporary necessities among the weavers; but at all events, they know to a farthing the value they can give, and they do not buy a piece more than suits them. But if the weaving was done on their account, they would be obliged to make the linen, however dead the market, or else have their men idle. Another observation which goes generally to all undertakings of this sort is, that the uniting in one person the several branches of a manufacture, will rarely be found advantageous. If every step is a distinct trade, alone occupying both capital and attention, the fabric is the more like to thrive. That Mr. Fitzmaurice, with great activity and a good understanding, can make himself a master of the business, nothing but contraction can doubt; but I question whether the most sagacious draper in Ireland would make considerably, if he wove the cloth as well as bleached it; hence therefore, the part of the preceding calculation the most applicable to gentlemen, is the detail of the expenditure of 3285*l.* because for that sum, 100 weavers and a bleacher would be set to work, to whom the landlord

might give what encouragement he pleased in bounties per piece, made and bleached, but neither the one or the other on his own account. After all, I see every reason to assert, that a gentleman, for a shilling he will ever make by a manufactory, will profit a guinea by the improvement of land; have rascals to deal with in one line, and honest men in the other.

MR. FITZMAURICE observes, that the art of bleaching depends so much on niceties, and not a little on matter of opinion in the drapers, who buy the linen, that it is difficult to lay down any rules for it; there are some points however, which deserve attention; first, in respect to the use of lime, which though great chymists have proved to be perfectly harmless and useful, if used with skill and caution, yet the bleachers positively deny the use of it, whether to indulge the prejudice of the common people against it, or for profit in making the worst ashes equal to the best, cannot be well ascertained. As to bucking and boiling, it is very observable, that the finest linens being made of the hardest and toughest fibres of the flax, which stand the operation of scutching (which by the way is a very strong reason why the finest linens should be incomparably more lasting than the coarser ones) make a distinction between boiling and bucking, the first is the most severe operation, and therefore necessary for the tough materials, the other proper for the coarse and weaker ones. But they are the same thing if done with attention; a thorough bucking is equal to a mild boiling, but depending both on the degree in which they are performed. With regard to rubbing-boards, the general prejudice to them being founded on fact, can only arise from
the

the bleachers saving soap ; if used in a proper quantity, there is not the least objection to them.

ACCOUNT of flax about Ballymoat. The greater part of the poor people about Ballymoat allot about half a rood of land to the growth of flax, the rent 7s. 6d. this is sown with about five gallons of seed, medium price 5s. 6d. the five gallons. From breaking and scutching, the above yields to the grower, from 84 to 112 cwt. that is, 6 to 8 stone. If the flax be dried, as well as broke and scutched at the mill, the charge is 16d. a stone ; if only the two latter, it is only 14d. or if scutched, only 10d. After scutching, it is worth, rough, 5s. to 6s. a stone.

DR.				CR.			
	£.	s.	d.		£.	s.	d.
Rent - - -	0	7	6	Value of 8 stone	2	0	0
Seed - - -	0	5	6				
Breaking, drying and scutching	0	10	8				
Profit for labour	0	16	4				
	<hr/>				<hr/>		
	2	0	0		2	0	0
	<hr/>				<hr/>		

AFTER scutching, it is heckled or split into small pieces of different qualities ; one half produces the best sort, which is spun to about three hank yarn, that is, three hanks to the pound ; the half of the remaining half, i. e. one quarter of the whole, is called hackled tow, and is spun into an inferior sort, two hank yarn, the remainder is called *backings*, and is spun into the coarser stuff, of which is made sack-

278 B A L L Y M O A T.

ing, coarse sheeting for the poor, &c. At this period the weight is not diminished above 4lb. in the cwt. and the best sort is worth at a medium, 9d. a lb. the second sort worth 6d. and the coarsest about 1½d. after payment of 1d. per lb. for the two first sorts.

DR.			CR.		
£.	s.	d.	£.	s.	d.
Rough flax -	2	0	0	56lb. heckled of	
Heckling -	0	7	0	best sort -	2 2 0
Profit --	0	12	0	28lb. at 6d. -	0 14 0
				Backings -	0 3 0
	2	19	0		2 19 0

THE hecklers generally travel about to the houses of poor people to get this work to do. Four men will be taken up two days in doing the above quantity. Spinning is performed by women and children; one diligent person will spin about one hank, containing 12 *ents*, each ent having 120 rounds, from two yards and a half in circumference in a day. If carried then to market, it generally produces 5d. per hank, or a dozen to the spinner, and is generally bought by jobbers or by poor manufacturers. Upwards of 40,000l. per ann. in yarn is exported from Sligo to Manchester and Liverpool. It is supposed that there is as much yarn exported raw from Ireland, as is manufactured in it. The first step taken by the manufacturer is to steep the yarn in lukewarm water for a day or two; it is then boiled 12 hours in a strong lee of barilla ashes, after which it is bleached for 3 weeks or a month, and when dry, is dressed and softened

softened by being hung in a frame, and rubbed in a clipped stick, after which it is sorted into different degrees of fineness, first by weight, and then by the eye, when it is ready to be delivered to the weaver, with the *reed* and *geers* adapted to manufacturing it. The grist or fineness of the yarn, determines the *set* or fineness of the reed through which it is to be wrought. The reed is divided into *beers*, each beer containing 20 splits, each *split* two *threads*. These threads are called the *warp*. The threads thrown across by the shuttle are called the *woof*. Five beers are what is commonly called a *hundred*, the number of which hundred is regulated by the skill of the manufacturer, so as to make the cloth thick or thin in the breadth: and the number of these hundreds constitutes the fineness and value of the cloth. N. B. The extremities are from 400 splits in the breadth of one yard to 2500. The rule to ascertain the true value of any given piece of cloth by inspection with a glass. Apply the glass to the cloth, reckon the number of threads in the warp, which are magnified by the glass, and by as many threads as are so counted, so many hundreds is the fineness of the cloth, which hundreds when doubled, and half of the first number added, i. e. 10 threads giving as many hundreds, them doubled make 20, and half added 25. Of so many hanks of yarn does a piece of cloth of 20 yards consist of, fairly and honestly made. Learn the value of yarn, add the weaving and bleaching, and the addition gives the value out of the manufactory.

An acre here.

	£.	s.	d.
Forty gallons seed, 1s. 6d.	3	0	0
Two ploughings	1	0	0
Two harrowings	0	6	0
Clodding, four women	0	2	0
Weeding, ten ditto	0	5	0
Pulling, twenty women, a day, 3d. and diet, 3d.	0	10	0
Binding, four men, 6d. and 3d. diet	0	3	0
Carrying, six horses, a day, at 1s. 6d.	0	9	0
Watering and fodding, six men	0	4	6
Taking out, four men	0	1	6
Spreading, twelve women	0	6	0
Lifting, twelve women	0	6	0
Carrying, two cars and four men	0	6	0
Drying, four men and four women	0	5	0
Twelve kishes turf, 8d.	0	8	0
Beetling, forty women	1	0	0
Scutching, 1s. a stone, fifty-six stone	2	16	0
Heckling, 8d. a stone for the flax, 1d. per lb. for the tow, 4 lb. of the first to the stone, scutched, or 14 stone, heckled, at 8d.	0	9	4
Three pound of tow to the stone, 168 lb. at 1d.	0	14	0
Rent	0	16	0
	<hr/>		
	13	10	4
If the land is hired ready dressed	11	8	4
Rent	2	0	0
	<hr/>		
	13	8	4

This

B A L L Y M O A T. 281

	£.	s.	d.
This if a cottar, but if not the rent is			
3l. which will make it - -	14	8	4
Value of the heckled flax, 7d. to 1s. average 9d. a lb. or 12s. a stone - -	8	8	0
One hundred sixty-eight pound of tow, at 6d. - - - - -	4	4	0
Six pound of backings to the stone, 336 lb. at one halfpenny - - - - -	0	14	0
	13	6	0

VERY little weaving in Sligo, but a little scattered spinning every where; the women earn 3d. or 4d. a day, by a hank a day. 80,000l. of yarn last year exported from the port of Sligo. Price of labour, cottars 5d. others 6d. Heaps of weeds burning all over the country for ashes for boiling the yarn, by poor people. An acre of weeds has been sold for 6l. 6s. One sixth of the county bog and mountain, the rest 15s. an acre. The farms rise to large ones, that are grazing, but all the tillage is carried on by cottars, or very inconsiderable ones. The courses are;

1. Potatoes. 2. Flax. 3. Oats. 4. Oats.

1. Potatoes. 2. Potatoes.

BARONY of Corra, the best in the county; the high lands all lime-stone. Rent about Ballymoat, 20s. Potatoes yield 26 barrels, at the average price of six shillings, it weighs 10 cwt. Wheat yields six and a half, or seven barrels. Oats 10 ditto. A great plenty

plenty of marle, and lime-stone, and lime-stone gravel in all the country, but none used, except by such as are forced to do it by their landlords. Of these the most generally used is the lime-stone gravel. A good deal of mountain, improved by little farmers, by their landlords directions. John Kelly, a little cottar on Mr. Fitzmaurice's estate, is a strong instance of this, and his mode of doing it has been by paring and burning, and spreading the ashes. He then puts in potatoes immediately, gets good crops, then good oats, and would, if he was able, sow grass seeds.

SUNDAY, august 26th, to the Rt. Hon. Joshua Cooper's, at Mercra, who not only received me with the utmost politeness, but was so obliging as to send for a neighbouring gentleman, in order between them, with other assistance, to answer all my questions, which was done in the most attentive and satisfactory manner. About that place the rent of land, on an average, 15s. Some of the mountains, that are not lime-stone, let for very little, 2s. but the lime-stone ones are good land universally, and yield almost as high rent as the rest of the country. Farms in culture are exceedingly small, the poor people divide and take them in partnership, four or five to a plough land of 100 acres, but they subdivide down to five or six acres, and in general all the tillage is done by these little occupiers. There are some large grazing farms up to above 1000 acres, which are under sheep and bullocks. One seventh of the county may be reckoned bog, and unimproved mountain, and the other 6-7ths, 15s. Mayo one-third, perhaps half, bog and mountain, and two-thirds, at 12s. Galway more than one-third bog, moun-

mountain and lakes. The courses of crops pursued here ;

1. Potatoes. 2. Barley. 3. Oats. 4. Oats.
5. Oats. 6. Oats. 7. Oats. 8. Left out seven
years to sheep.

1. Potatoes. 2. Flax. 3. Barley. 4. Oats.
5. Oats. 6. Oats. 7. Oats. 8. Oats. 9. Lay
out.

1. Potatoes. 2. Flax. 3. Barley. 4. Oats.
5. Oats. 6. Oats. 7. Potatoes.

1. Potatoes. 2. Barley, which is the best course
I have met with in Ireland. Wheat is coming in
in the following course,

1. Potatoes. 2. Wheat. 3. Oats, 4 or 5 years.
Some wheat on summer fallow. Grass land hired for
potatoes, at 5l. if not an acre, is

	£.	s.	d.
Rent	-	-	0 15 0
Cefs	-	-	0 0 4
Tythe	-	-	0 0 0
Manuring labour, 20 men, and 3 horses	1	5	0
Seed, thirty pecks, each 6d.	-	-	0 15 0
Putting in first digging, 30 men, at 6d.	0	15	0
Second covering, shovelling ditto	-	-	0 15 0
Third ditto, fifteen men	-	-	0 7 6
Weeding, eight men	-	-	0 4 0
Digging up, sixty men a day	-	-	1 10 0
Picking and gathering, one man to four	0	7	6
Carrying home, five men and five horses	0	5	0
Picking over and shifting	-	-	0 5 0
			<hr/>
	7	4	4

PRODUCE.		£.	s.	d.
300 pecks, 56 lb. each, at 6d. per peck		7	10	0
If they, which is very common, hire				
grafs land for it, the rent is 4l. 4s.				
on an average, then				
Rent	- - - - -	4	4	0
Other expences as before	- - - - -	6	9	0
		<hr/>		
		10	13	0

PRODUCE.				
Three hundred and fifty pecks, at 6d.	-	8	15	0
		<hr/>		
Profit	- -	1	18	0
		<hr/>		

MANY are planted in bogs that are drained ; they are the first thing they plant, manuring with both lime-stone gravel and dung, the first will not do alone, but very little dung will do : the crops are superior in quantity to those from any other land, they will get 50 pecks more than from the grafs land. They feed their cows and pigs with them when plentiful. Mr. O'Hara of Nymphsfield fattened many bullocks with them, and found that they did exceedingly well. Of barley they sow a barrel per acre, which is here 14 stone, and get on an average 14 barrels an acre. In Terrera barony they get great crops, sometimes 20 barrels an acre. They sow 2 barrels of 12 stone of oats, the mean produce 10 barrels, some not above 5 or 6. Of wheat they sow 12 stone, and the crop 6 barrels. Every body sows a patch of flax ; a farming cottar, with 6 or 7 acres, will sow 6 or 8 gallons. The quantity of seed 40 gallons per acre. The value sold *on the foot* is in general 8l. and the crop is calculated that a gallon of seed produces a stone of scutched flax, or 40 stone per acre. The

quan-

quantity of waste improved is very considerable; it is moory mountain, about 12 inches deep. In much of this, immediately under the moor, is a thin stratum of what they call *lack-clay*, which is like baked clay, the thickness of a tile, and no water gets through it. Under it lime-stone gravel. Trenching the land for potatoes, breaks this stratum, and lets the water through at once, and no other drains are necessary. In less than a century, almost the whole country, as well as Roscommon, was a moor. The mode taken has been by lime-stone gravel chiefly, and this goes on so much, that the moors are worth a considerable rent; the crops they give at first are very great. The expence of gravelling is 2l. 2s. an acre. 2000 horse-loads in baskets on their backs is the quantity, it changes the nature both of moors and clays intirely, and lasts for ever.

In this country there are large tracts of grafs land, which will rear the largest oxen, but will not fatten them; but if gravelled, will fatten them perfectly. Lime not used as a manure in common, though there is an amazing quantity in the country; the price of burning will be four-pence halfpenny a barrel of roach lime. A barrel of turf will burn a barrel of lime; a barrel of turf is one-third of a kish. Turf mold laid on a clay meadow will give one good crop. The system of cattle is various; the graziers upon good grafs buy in cows in the month of may, at 3l. 10s. average, and sell out in november and october, at a profit of 1l. 10s. also buy oxen 3 year old in october, give them coarse hay, and sell them fat or in good order the autumn following; buy in at 4l. 10s. and sell out at 7l. and he will take for meadow half an acre of hay, and one and a half for summer;

summer; besides which there will be one sheep and a half per acre the year through, which will pay 12s. Upon worse land they go into the succession system, which is buying year olds at 25s. on an average: these, at 4 year old, come to 5 cwt. which is the common size of the county: kept 3 years, and sold them lean at 4l. 10s. but these systems are always united on the same farm, as they have all sorts of cattle to suit different soils. No dairies.

THE sheep system is not of consequence, for there are scarce any flocks kept. Twenty years ago the baronies of Corra and Terrera were continued sheep-walks; but now the former is all potatoes and barley, and much of the latter is broken up, so that upon the whole tillage has gained very much on grass. The sheep there kept are both fattening and breeding; they keep their lambs till three-year wethers, and sell them fat at 16s. that is, 18 lb. a quarter, at 2d. a lb. The ewe lambs will be kept, and old ewes culled and sold off half fat, at 10s. The fleeces on the average of the whole will be 4 lb. Mr. Ormsby gets 8 and 10 lb. from his wethers. Swine increasing, no pork exported from Sligo till last year, but now they are getting into it. Horses are used for tillage only, 4 in a plough abreast, and some harrowing still done BY THE TAIL; they will plough half an acre a day, or more commonly three days to an acre. Upon wet lands they plough into ridges arched, but never water furrow. As to hiring and stocking farms, they manage so as to do without capital; a grazier will re-let to his cottars as much of his land as high as he can; enough to pay his rent or near it, and as to the poor fellow, he manages with

with very little. 3l. per acre will do for buying the cattle for a grazing farm.

LAND sells at 20 years purchase, rack rent. The rents are less than 5 or 6 years ago, but are rather rising at present. Tythes are generally taken in kind; they are let to tythe proctors, who are paid; wheat 8s. Barley 6s. Oats 4s. Flax 8s. Potatoes none tythed in Connaught. Hay 3s. Leases 3 lives, or 31 years. Much of it let on leases renewable for ever. Middle men, who occupy none, is a practice declining, but not gone out. Two bolting mills erected, which begin to increase the crops of wheat, and promise to change the face of the country. The people throughout it increase very fast. Their circumstances in general are infinitely better than 20 years ago; they are clothed and fed better; are much more industrious; spalpeens going from hence decline much, and will soon be entirely out. Rent of a cabin and garden 20s. The grass of a cow 30s. There were some emigrations to America, but not considerable, and some that went are come back again. The religion in general catholic; but more protestants than in any other county in Connaught. In the baronies of Liny and Corra, there are many Milesian Irish; in Mayo more still, all of the Spanish breed. The food of the poor people potatoes, milk, and herrings, with oaten bread in summer; all keep cows, not pigs, and but a few poultry. They have an absolute bellyful of potatoes, and the children eat them as plentifully as they like. The average price of oatmeal something less than 1d. a pound. All of them have a bit of cabbages. They prefer oat bread both to potatoes and to wheat bread. All afford whisky. A year's turf will cost a family 30s. The common

common people are so amazingly addicted to thieving every thing they can lay their hands on, that they will unshoe the horses in the field in the barony of Liny; they are also lyars from their cradle, but wonderfully sagacious, cunning, and artful.

WITHIN 10 miles of this, in Leitrim, is a great country of good coal near the surface; but for want of being well worked, sells at 7s. a ton: and near Ballysodare is a lead mine, but not worked with success, though very rich. As to the linen manufactory, it has made some progress; there are 6 bleach greens in the county, and there are many weavers. Spinning is universal in all the cabins. A woman will earn two-pence halfpenny at it. The rents are mostly paid by yarn.

MR. Cooper has reclaimed, and is reclaiming 65 acres of bog, which is 12 feet deep, and was so wet and rotten, that no animal could go on it without being swallowed up: much of it had been so mangled and cut in holes to get turf, that the levelling in order for the plough was put out at 1l. 10s. an acre. A great drain was made round it 9 feet broad at top, 10 deep, and quite narrow at bottom, and these drains were repeated, but not so large at the distance of 60 yards from each other. A drain of 9 feet wide at top, and 6 deep, costs 10d. a perch. The above drains were done by the day. In one year after, the bog was dry enough to plough, which he did, and burnt the furrow and sowed rape: the crop middling, eat it with sheep. The second year ploughed and burnt it again, and had a second crop of rape; after which another year of rape and turnips, and it now lies with the grasses that came of themselves after these

these operations: it is but indifferent, except in one place where some lime-stone gravel was scattered, and there it is good, promising well. Adjoining the bog is a wet springy bank full of rushes, from which Mr. Cooper apprehends the water comes that breaks out in the bog, which it does in a few places, for want of the surrounding drain on that side being completed. To such as have bogs to improve, he would recommend to surround the space to be improved with a drain so deep as to go to the gravel, which is a point he thinks very necessary; as when this is done, if there is any fall at all for the water, the drain will keep open, and not close up, as it will do if not so deep, for want of a hard surface for the water to run on. A year after this work, plough it, burn the furrow, and sow rape for sheep food, leveling the land by ploughing and burning; repeat this till level, or if there is any dung, potatoes are much the best crop, and will be a great produce. As soon as the land is level, sow oats and hay seeds, and when there is a skin of turf gained, then carry on the lime-stone gravel in preference to every thing else, if it is to be had: the effect is so strong as to change heath to white clover at once upon drained land. The more soapy the gravel the better: and Mr. Cooper, from experience, knows that it would then set as meadow at 30s. an acre as long as it was kept from returning to its original state. As to the quantity of draining, cutting it into oblongs of 300 yards by 60, would be fully sufficient: these have laid his bog dry.

TURNIPS Mr. Cooper has cultivated these 17 years regularly, with success, for stall-feeding oxen, and has found them of great use. Cabbages he has had

these four years, the Scotch fort, borecole, and Reynold's turnip-cabbage; these he has used for fattening sheep, and never had such sheep as by this means. He much prefers cabbages to turnips for all uses, can get larger crops, what he gets goes farther, and are much preferred by both cattle and sheep: after them, exceeding fine barley. In the breed of cattle Mr. Cooper has taken pains to improve by means of a Lancashire bull, of Mr. Parker's breed, and this with such success, that his cattle are all very fine, large, and well made; all Lancashire long horns, with a mixture of the Stafford and Warwick. He has also found that this improvement of the breed for fattening has not hurt his dairy, for his cows give 8 quarts of milk at a meal, which is esteemed very well here: for fattening the breed is excellent. Oxen he has used for tillage 18 years, instead of horses; works them in common yokes, and bows 4 or 6 in a plough; but he thinks that four horses will do more work in a day than four oxen: yet finds the latter incomparably the most profitable. Mules he finds of the greatest use. They are much longer lived than horses, hardier, easier fed, and more profitable: but this is principally applicable to the small Irish mule, and not the large ones from Spanish asses, which are not so hardy, and more liable to disorders. They are never fed so well as horses, yet go through more labour: and are much superior to them for carrying burthens. One caution, however, should be used in relation to their food. If wheat straw is cut into chaff and given, it will kill them; the late bishop of Elphin lost all his mules by it. Mr. Cooper has fattened many hogs on potatoes, and he has found that raw potatoes will fatten them very well, but the fat will be flabby and greasy; but if

the potatoes are parboiled, and well sprinkled with salt, the flesh will be firm, and perfectly good. He once tried fattening a cow on them, and she did admirably, but eat so much, that at the very lowest price it would not answer to give them. He has improved much land by hollow draining, with fods, and found that it answers perfectly.

SLIGO is the only sea-port of this country, and the state of its trade may be taken, as no bad explanation of the improvement of the country around it with which it communicates.

A view of the duties on imports and exports in the port of Sligo for twenty years, ending Lady-day, 1775.

Years.	Imports.			Exports.		
	£.	s.	d.	£.	s.	d.
1756	1208	11	4	26	11	7
1757	216	12	0	15	13	10
1758	425	10	1	23	11	11
1759	504	11	6	45	1	0
1760	518	9	8	45	6	3
1761	384	19	4	51	13	0
1762	640	6	11	73	17	11
1763	1017	11	7	104	17	7
1764	1187	15	3	131	3	2
1765	1458	9	4	102	17	0
1766	406	12	7	120	1	4
1767	486	7	2	92	17	7
1768	1178	12	3	160	8	6
1769	998	14	6	487	17	2
1770	1122	2	4	523	6	7
1771	1554	19	0	309	2	0

Years.	Imports.	Exports.
	£. s. d.	£. s. d.
1772	841 16 7	471 9 11
1773	2477 17 11	835 11 10
1774	2418 5 4	730 11 4
1775	2256 8 1	956 0 6

Mr. Cooper has remarked, that the great improvement of this part of Ireland commenced about the year 1748, and that rents now are, to what they were before that period, as fifteen to six. Some farms bought in 1725, at 5s. 6d. an acre, and twenty years purchase, are now lett at 18s.

AUGUST 26th, left Mercra, and went to Ballafadore, when I had great pleasure in viewing the falls; the river breaks over rocks in the most romantic manner, from edge to edge, in many falls, for the space of two hundred yards before it comes to the principal one, which is twelve or fourteen feet perpendicular; the scenery about it is bold, the features of the mountains are great, and Knocknaree in full relief; if the falls were through a dark wood, the scenery would be among the finest in the world.

To Tanrego, the seat of Lewis Irwin, Esq; (who favoured me with several articles of useful intelligence) situated in the barony of Tyrera, which is twenty-seven miles long, and cultivated from one and an half to three in breadth, by the sea side; lets from 12s. to 17s. an acre, a little for 20s. The soil a light sandy loam, on lime-stone, one foot to two deep. Farms are in general from twenty to thirty acres; many taken in partnership, four to eight families take two hundred acres.

1. Ma-

1. Manure with wrack for potatoes. 2. Potatoes;
3. Barley. 4. Barley. 5. Oats.

1. Potatoes. 2. Barley. 3. Oats. 4. Potatoes
again.

1. Potatoes. 2. Barley. 3. Oats. 4. Lay out
for grass.

No seeds, in one or two years white clover will come if not over-cropped. For potatoes, they lay from 100 to 150 horse loads of sea weed, mix no dung with it. Plant twelve pecks, each 56 lb. and get twelve to twenty fold, that is 144 to 249 pecks. Of barley, they get thirteen or fourteen barrels per acre. Of oats, ten barrels. They burn vast quantities of kelp; in the whole barony three hundred tons, all in summer; in winter or spring they manure with it. The brown alga, which is the more luxuriant, and fuller of the saponaceous liquid, they don't manure with, thinking it too strong for the land, burning it up as they call it; but if they would lay it in heaps till rotten, or made composts, neither of which they ever do, this would not be the case. They manure with it every six or seven years. Mr. Irwin spreads it in his pound upon a stratum of potatoe-stalks, and over both, one of turf and mould, for cattle to tread on; this is a most excellent practice. The mountains nearest to the sea, are chiefly stocked with sheep, and farther in, with young cattle. Upon a part of these mountains, of three miles in extent, whatever sheep feed, are immediately killed by the staggers, and horses affected; there is a good deal of limestone, and the land is dry, and to appearance, and in fact, good; it fattens bullocks; the noxious effect is

attributed to the lead mines; which this part is supposed to be full of. When first affected, if brought down to a salt marsh, it recovers them immediately. Within a few miles of Tanrego, is Glanesk, and Loch Alt, six to ten miles broad, and twenty long, one continued chain of mountain and bog. Three-fourths of Sligo bog, and uncultivated mountain. In the above tract, lime-stone every where, in some lime-stone gravel, and a good road runs through it; in all this, no cultivation or improvements. Mr. Irwin, upon a part of this country, tried about an acre of boggy, moory mountain, to see if paring and burning would do; it answered greatly, and the best potatoes in the country were there next year. Lime he also tried, and with great success; he did this in order to shew the people that their wastes were improveable. Upon the sea-shore are immense beds of oyster-shells, which are burnt into lime for building and plaistering, as they take much less fuel; these hills received no little increase from all the gentlemen of the interior country coming to the sea-coast to eat oysters, where having filled themselves sufficiently in the mornings, they got drunk in the evening; this was in the *uncivilized* times. Most of the gentlemen of this country were Cromwell's soldiers, and many Welch families, Jones's, Morgan's, Wynn's, &c. In the barony of Tyrera flax is universally cultivated; a man with twenty acres will have a rood, which is sown with five gallons of seed; all the females spin, but the number of weavers is inconsiderable. Walked down to the coast of Tanrego, immediately opposite Knocknaree, which rises very boldly; the bay of Ballyfadore comes up under it, and Ylanabaolane island, of
five

five or six acres, so rich, that it will fatten nine sheep an acre; it forms Sligo bay.

To Sortland, the seat of ——— Browne, Esq; to whom I am obliged for the following particulars.

THE barony of Tyreragh, black mold on limestone 6 inches to a foot deep, lets at 18s. on an average. The farms are various, generally taken in partnership, which is found a most mischievous custom, and destructive to all good husbandry. The course,

1. Potatoes manured with sea weed. 2. Barley produce 15 barrels. 3. Oats 10 barrels. 4. Oats. Very little ever laid to grass.

1. Potatoes. 2. Barley. 3. Oats. 4. Flax on spots.

THE sea-weed the only manure, they depend entirely on it, and apt to do that too much, neglecting other parts of management. The circumstances of the people are not at all improved in 20 years, they are not better fed or cloathed, or in any respect better off than formerly. Nor are they at all industrious; even of sea-weed they do not make one half the advantage they could, they might get an hundred loads where they get one. They increase in number very greatly, so as to be evidently crowded; this has been the case particularly since inoculation was introduced, which was about ten years ago. They live upon potatoes and milk, and for three months in the year on oatmeal. Mr. Browne is convinced from every observation, that the potatoes are a very wholesome and nourishing food. The linen manufacture

consists only in spinning, which is universal in all the cabbins, so much, that they are assisted by it, in paying their rents. They earn 3d. a day by spinning: one pound of flax for three hank yarn a woman is four days spinning.

WITHIN a mile of Sortland is a vast bog, which stretches ten miles in length, and two or three over. It is a black one, 16 spit deep. There are hillocks in it of lime-stone gravel, but lime-stone is not to be found near it in general, though not searched for with any attention. It is, however, so cheap here that any improvements might be worked; Mr. Browne can burn it at 3d. a barrel roach. He hires 1100 acres of this bog, of Mr. King, of Ballina, at 4l. a year, though he has not improved it, has no doubt of its being improveable, and remarks that he never yet saw a bog that had not a fall enough to drain by. In the barony of Tyreragh, there are a few grazing farmers, but not many. Mr. Nesbit is the greatest, he farms above 3000 acres. Not a third of the county is bog and mountain, but more than half Mayo is so: average rent of the whole county, exclusive of bog and mountain, 16s. an acre. The shore is a very fruitful one in sea weed, which is burned into kelp in summer; they pay a rent for it by the ton of what they get.

FROM the slate quarry to Enniscrone, nine miles, they make 200 tons of kelp. The men have 17s. to 20s. a ton for serving, making, and burning, and it sells at 2l. 2s. There is not half so much used in manure as in burning. It is made all the way from this country to Galway. Mules, Mr. Browne thinks superior.

superior to horses, for carrying back loads, but much inferior in drawing ploughs and cars. They are so long lived, that the age is scarce ever asked when they are bought; they will live, in common, in full work, to 30 years. They will also in bog, draw out their legs infinitely better, though they go deeper in. From 100 ewes, Mr. Browne sells 100 three year old wethers, fat at 18s. to 20s. also 20 old ewes at 13s. 300 fleeces at 4lb. at 1s. or 45l. Buys in yearling bullocks at 40s. and sells out at 7l. gets thereby 5l. for keeping two years and a half. No hay given, except in snow. He has improved 20 acres of dry moor from heath (*erica vulgaris*) it would not yield any rent, but now would let for 15s. an acre. The moor was one foot deep on *lack* clay, and under that a loose gravel, not lime-stone. Marled it with white marle from under a bog, at the rate of 150 barrels an acre, which cost in labour 5s. spreadit, and left it for a year, which killed the heath effectually, then ploughed it twice, and took two successive crops of potatoes, without dung, the first an extraordinary one, the second not bad: then two crops of barley, which were very good: then oats, two crops, both very good, and then let it at 15s. an acre. If he had ever such quantities of this land, he would never stop from the improvement, being amazingly profitable.

AUGUST the 27th, to Ballyna, where I experienced the most polite reception from the Right Hon. Mr. King. The views of the distant mountains is very fine; the country is almost encompassed by them. Those of Donnegal to the right, a great ridge, which separates Tyreragh to the left, Nephin-noble
in

in the front, and Knockaree behind. Many kilns for drying corn in the road. Passed three miles of pasturage under cattle, before I came to the river leading to Ballyna. The views there are beautiful, it spreads in different reaches. That of Ballyna is uncommonly pleasing; the river gives a noble bend to a few rising grounds on which a part of the town is seen; beyond it the bridge, and the whole crowned by the Nephin mountain, which rises with a magnificent regularity from its base, and is one of the finest mountains I have seen.

At Ballyna is a salmon fishery, let for 520l. a year, which is one of the most considerable in the kingdom; generally 70 or 80 tons salted, besides the fresh. Close almost to this fishery is a very pretty and well planted farm, belonging to Mr. Jones. Mr. Lindsay, the owner of this fishery, improved 16 acres of heath moor, in the following manner: he covered it with lime-stone gravel, at the expence of 30s. an acre, left it two years, by which time the heath was all dead; then ploughed it the end of summer, and in a month harrowed it; ploughed it, and harrowed it again after Christmas, and in the spring let it to poor people, for potatoes, at 4l. an acre; they got a very good crop; next year ploughed it, and let it for a second crop, reversing the ridges, at three guineas. After this barley, and got a good crop, sowing grass seeds with it.

MR. GORE, of Ballyna, had been mentioned to me as one of the most considerable farmers, in cattle, of any person in Connaught; he was not at home, but his son-in-law, Mr. King, was so kind as to procure
me

me the particulars of his domain. Mr. Gore's breed of horned cattle is fine. Some years ago he sold heifers at 50l. a-piece, and now from ten to twenty guineas; the breed not declined, but purchasers not quite so mad as they were. Yearling bulls 20 guineas. This breed he got from Yorkshire 30 or 40 years ago. His breed of sheep is also excellent, being much improved by rams from England. He improves much moory land and bog, generally 10 or 15 acres every year, by lime-stone gravel and marle. Average rent of Tyreragh 12s. Walked in the evening to a most noble garden, walled and planted by Mr. King: it is one of the completest I have seen in Ireland.

AUGUST 28th, took my departure from Ballyna, and waited on the Bishop of Killala. I wished to have some information concerning that vast wild and impenetrable tract of mountain and bog, the barony of Erris. His Lordship and Mr. Hutcheson were so kind as to give me every particular in their power. The only cultivated part is the peninsula called the Mullet, where they plant a good deal of potatoes, barley, and flax, by means of sea weed; there is a rabbit warren, the skins of the rabbits yielding 100l. a year. The rest of it is without cultivation, except in small patches here and there; it is supposed, generally speaking, to be without lime-stone or lime-stone gravel, but probably no great search has been made in so dreary a region. It is no easy matter to get in or out of it in winter; and very few persons ever attempt it from november to easter, having impassable bogs in the way. There were 896 families in the barony in 1765, 400 of which are inhabitants
of

of the Mullet: 47 protestant, and 840 popish. The bishop of Killala has built a house in the Mullet for a clergyman, who resides there; the living is between 50l. and 60l. a year, and 40 acres of land, which the bishop has given from the fee lands. This may truly be called a sphere for content, and the philosophic virtues to exert themselves in; there is not a post-house, market-town, or justice of peace, in the whole barony, which is also the case with another barony in this county, Costello. A post-house and a market are excellent things, but a justice may very well be dispensed with. There are many herds of small cattle, and some sheep kept, which are sold from thence. There is not a tree in the whole barony of Erris; a man going out of it to pay his rent, &c. his son with him, a lad of near 20, when he came near Killala, and saw a tree, "Lord, Father! what is that?" But bare of wood as it is at present, it was, in the sylvan age of Ireland, completely covered: for in no part of the kingdom is there found more or larger in the bogs.

THE barony of Tyrawly is among the best parts of the county of Mayo; 800 bullocks, most of them fat, are sold from it annually at Ballynasloe fair, which are kept here from being year olds, and sold at 4l. The quantity of tillage is very inconsiderable, but what there is is vastly improved by the use of sea weed. Lands near the sea let at 20s. which at two miles, would yield but 14s. merely from being too far, as they reckon, to carry the weed. The poor people in this barony are not improved in their circumstances in 18 years past, that the Bishop has resided at Killala. There is some weaving, so that there is scarcely

scarcely a market at Ballyna, or Killala, without some linens sold. Spinning is universal in all the cabins, but the yarn is only four-hank yarn. They spin and weave wool enough to cloath themselves, with drugget, yard-wide, for the women, at 1s. a yard, and frize for the men, at a *flatt*, or measure, four feet two inches long, and 20 to 23 inches wide, which sells from 1s. 11d. to 2s. 4d. Their food is potatoes, cockles, herrings, and a little meal, and when the potatoes are out, on oatmeal only. They do not all keep cows, but the majority do, and those who do not, buy milk. Beef 1d. per lb. in autumn, 20 years ago, now 1½d. Fish very plentiful. I partook of three gurnets, two mackarels, and one whit-
ing, enough to dine six people, at the Bishop's table, which his steward bought for 6½d. Lobsters plentiful. Turbot 3d. a pound. There are 150 boats belonging to the bay of Killala, or Moy; and to the town from 20 to 25, five men to a boat; the boat has a fifth, the nets two fifths, and the crew two fifths; the two fifths belonging to the crew are subdivided into sixths, of which the skipper has two. The herrings are caught near the bar, and in the river Moy; the fishery begins in october, and lasts only two or three weeks. They judge of the shoal being there by the Gant, a bird that pursues the fish; they sometimes get each boat 10,000 herrings, which is a full load, but this is very rare, in general a good night's work is from 3000 to 5000, and the price from 13d. to 2s. 6d. the medium 1s. 8d. per hundred, or 16s. 8d. per thousand; consequently a night's work 2l. 10s. The boat is four tons, and costs 20l. and the nets 10l. Seven share of nets to each boat, each share sixty yards long, and four fathom deep,
eight

eight score mesh. The nets are, all made here; the poor people use flax, but others use hemp; they bark them, but none use tar and oil. The fishery was once much more considerable than at present. There is no ship belonging to this port, they had one, but that wicked fellow Thurot took her, and quite unshipped the harbour.

AUGUST 29th, took my leave of the good Bishop, to whom, and his son, Mr. Hutcheson, I am obliged for the preceding particulars and many civilities. Breakfasted with the Rev. Mr. Garrat, at Foxford; passed over some very fine reddish sandy loams, till I came to a hill, from whence an extensive tract of bog is seen. Rents about Foxford are 12s. for cultivated, arable, and pasture; and thence to Castle-bar the same. From Foxford to Tubercurry 16 miles of bad country; the best of the cultivated land 12s. some at 8s. and 10s. but these rents are only the improved spots: they are improving the moors and mountains very fast, particularly the estates of Mr. Rutledge and Lynch. It is done with white marle from under hogs. It must not be imagined that when I speak of mountains and moors in Mayo, or its wild barony Erris, that these lands yield no rent; they are let in the lump, and applied to feeding cattle. They put on two year old bullocks, and keep them till full three, when they bring them to the good grounds, and from thence take them to Ballynasloe. These mountains will not do for year olds. Some of them are unhealthy for cattle; for if they are left more than a month or six weeks on them, they are disordered with lumps on their joints, so that they cannot rise from the ground; yet at the same time shall be in good

good order, it disappears on a change of pasture. Red deer run wild in the mountains of Erris.

To Castle-bar, over an indifferent country, and a vile stoney road; about that town the husbandry is admirable. They have three customs, which I must begin with; first they harrow by the tail, item the fellow who leads the horses of a plough, walks backward before them the whole day long, and in order to make them advance, strikes them in the face. Item, they burn the corn in the straw, instead of threshing it. Among their customs it may be worth mentioning, that at the wakes or funeral entertainments, in addition to the circumstances I related at Castle Caldwell, both men and women, particularly the latter, are hired to cry, that is, to howl the corps to the grave, which they do in a most horrid manner: they are not so disagreeable, as I was told, in Munster. The quantity of whiskey and tobacco consumed upon these occasions is pretty considerable. In the lake of Castle-bar, near that town, is the char, and the Giltaroo trout with gizzards, and it is remarkable that there are no pike in the lakes of this country. Land lets at 15s. to 20s. cultivated, both grass and arable: town parks 40s. The mountains are reclaiming by lime-stone sand and gravel; it is the common cottars who do it. There are more than 500 affidavits sent to the Dublin Society upon this account, in which I was told they are apt to be deceived, as well as in the corn standings. There are very large farms in this neighbourhood, even up to 2000l. a year: but all the great ones are stock farms, and most of the tillage of the country is performed by little fellows, cottars, and tenants to these large farmers. Eight or nine
years

years ago there were no linens here; but now 300 pieces are sold in a week, 200 looms are employed in the town and neighbourhood, yet great quantities of yarn are sent off. The town, which belongs to Lord Lucan, is greatly rising from manufactures; the houses are well built, yet only 31 years, or three lives, granted.

IN the evening reached Westport, Lord Altamont's, whose house is very beautifully situated, upon a ground rising gently from a fine river, which makes two bold falls within view of his windows, and sheltered on each side by two large hanging woods; behind, it has a very fine view of the bay, with several headlands projecting into it one beyond another, with two or three cultivated islands, and the whole bounded by the great mountain of Clara island, and the vast region of Crow-Patrick, on the right; from the hill above the wood, on the right of the house, is a view of the bay, with several islands, bounded by the hummocks, and Clara Island, with Crow-Patrick immediately rising like the superior lord of the whole territory, and looking down on a great region of other mountains that stretch into Joyce's country.

IN Lord Altamont I found an improver, whose works deserved the closest attention; he very readily favoured me with the following account: he began to improve mountain land in 1768, and has every year since done some, making it a rule to employ whatever labourers offer for work. All of it covered with heath (*erica vulgaris*) and the soil on the surface moor; would let for 2s. an acre for turning young cattle on, the only use to which it was applied.

EXPERI-

EXPERIMENT, No. 1.

IMPROVED a piece of mountain land, of the above description, by spreading lime-stone sand. (N. B. The marle called here *sand*, is what I have generally found under the denomination of lime-stone *gravel*; the stones in it are of the size of a man's double fist, it is clayey, and very hard bound together in the stratum; the harder to raise, the better it is. It has a strong fermentation with acids.) Spread the sand on the heath, and left it for one year, at the expence of 1l. 1s. dunged it, and planted potatoes; found great difficulty in digging it from the roots of a kind of grass, like a rush, called *keeb don*, in English, *black keeb*. The crops very bad. Dunged it the year following for oats; the crop very fine, and repeated them the next year. Left the oat stubble, and it covered itself so with good natural grass, that the next year mowed a crop of hay, and the same two years more. Finding it not well reclaimed from having ploughed it too soon after the sanding, gave it a new manuring at nearly the same expence; did not plough it any more, but such of the stones as had not sunk of themselves were beat in with mallets, at the expence of 2s. 6d. an acre, in order to smooth it for mowing. This was very practicable, having two spits of boggy turf on the surface. Ever since it has been excellent meadow, worth 1l. 2s. 9d. an acre.

EXPERIMENT, No. 2.

IN 1764, improved another piece, sanding it at 40s. an acre, owing to the distance; left it two years on the land, and then let it at 40s. to the poor people

for potatoes ; after which took three noble crops of oats. Then left to grafs, and the first year mowed a great crop, and let it for 16s. an acre.

EXPERIMENT, No. 3.

IN 1765, began with fifty acres more of mountain land, but full of heath. First drew off the stones, and made a wall round it six feet high, and the stones not wanted for this, threw down the river, some of which were so large that it took 16 bullocks to draw them. Expence 30s. an acre, besides 1s. 6d. a perch for the wall. Dug and burned it, and spread the ashes, 2l. 2s. an acre ; it was before too rough and coarse to plough. Then ploughed it with bullocks, and sowed rape ; the crop middling, where the ashes were yellow good, where white bad ; seeded the rape, and then dug it, and limed it, 160 barrels an acre. Would not use lime had not the hill been too steep to lead gravel up : he had 19 lime-kilns burning at once. Upon this liming ploughed for oats ; the crop tolerably good. A second crop of oats, which were very fine, and then let it run to grafs ; let it at 15s. an acre. Observed that the burning brought up a great quantity of rushes, which had not appeared before.

EXPERIMENT, No. 4.

ANOTHER considerable piece, where turf had been cut, was manured, part with lime-stone sand, and part with mortar rubbish, and another with *graulagh*, or coralline shelly sand ; the expence each about 1l. 2s. 9d. an acre. Ploughed and burned it, and sowed it with turnips ; a very noble crop. Drew the

the turnips, and fed them in a pasture. The spring following planted it with potatoes without any other manure, and the crop much the greatest he ever saw in his life; from one stalk had 143 potatoes, then took three crops of oats, which all proved exceedingly good. The black Frizeland oat, and the second crop, yielded 26 barrels an acre, each 14 stone. Sowed Dutch clover with the last, and could let it at 20s. an acre.

EXPERIMENT, No. 5.

ANOTHER piece of heath mountain, not entirely dry, worth 1s. an acre, manured very richly with lime-stone sand, at the expence of 30s. an acre, and left so without any other improvement. In three years it was worth 5s. in eight years 10s. an acre, and in twelve years 1l. 1s. and so has remained.

EXPERIMENT, No. 6.

ANOTHER piece, worth 5s. an acre, was sanded at 1l. 2s. 9d. which was left three years on it, and then planted with potatoes, by the country people, who paid 3l. 10s. an acre. After which it was sown thrice with oats, the crops very good, left for meadow, and let it at 30s. an acre.

EXPERIMENT, No. 7,

SANDED another piece, at 1l. 5s. left it three years, and ploughed it up in dry weather, in may; left it till after wheat sowing, and then cross-ploughed it, and in the spring harrowed it with great ox harrows, and planted it with potatoes; after which two crops

of oats, great crops, and then left it for grass. Worth immediately 1l. 2s. 9d. an acre.

A CURRAGH of one hundred acres, that is a wet quaking bog, which will not do for turf, with a long sedgey grass on it. Part of a farm at 30l. a year, Lord Altamont took into his hands, with the consent of the tenant; he drained it to the amount of 30l. at 7d. a perch, five feet deep, and ten feet wide; this simple thing improved it so much, that without any other improvement, he let it to the same tenant, at 70l. a year. Made perfectly sound, so that bullocks of 8cwt. could graze on it.

UPON the whole, Lord Altamont is of opinion, from a variety of experience, that the best method of breaking up heathy mountain land, is by manuring with lime-stone sand, to the thickness of an inch, which at present costs 1l. 11s. 6d. per acre. If sand is not to be had, then the white marle from under moory bottoms; and if there is none of that, then lime. Objects to lime, as it brings the land infallibly to moss, which is so powerful as to choak the grasses, but marle is an excellent manure. To leave it for three years, or till daisies (*bellis*) and white clover (*trifolium repens*) appear, then to plough it in may or june, and again in autumn; and in the spring to plant potatoes, in the common trenching way, and after the potatoes, would sow oats successively, till the chickweed (*alsine media*) appears, which is a sign that the tillage has so enriched the land, that the crops will be too great, and then leave it for grass. This is what he has on experience found to be the best way. If sea weed is plentiful, he would manure the potatoes with it, and then would have the

the first crop barley instead of oats. A large portion of these mountains are wet, owing to the *lack* clay, but the potatoe trenches break it, and let off the water; after which the land settles by degrees, and becomes perfectly dry. There are great tracts of many miles extent of heath mountain in this neighbourhood which are capable of the above improvements.

	£.	s.	d.
To shew what the advantage would be of doing it on a perfect and extensive scale, I shall calculate a square mile of 640 acres, enclosed in 64 divisions, 10 acres each, and the walls would amount to 5760 perches, two miles of road, at 50l.	-	-	100 0 0
Lord Altamont has found that his walls of six feet high, two feet and a half wide at bottom, and 16 inches at top, built dry, cost him on an average, 5s. a perch running-measure, of 21 feet, including all expences, 5760 at that rate,	-	-	1442 10 0
Forty gates of iron, at 50s. piers, &c. &c. 5l.	-	-	200 0 0
Of wood they cost 2l. complete			
Ten-acre divisions would completely clear the land of stones.			
Sanding at 1l. 11s. 6d. an acre	-	-	984 0 0
			<hr/> 2726 10 0
Left for three years interest of 1000l. to begin with for that time, at 6l. per cent.	-	-	180 0 0
			<hr/> 2906 10 0
Carried over	-	-	
X 3			Brought

	£.	s.	d.
Brought forward	2906	10	0
This is an unfair charge; Lord Altamont observed, that the improved value would more than pay it.			
Ten farm-houses, with offices, at 50l. each.	500	0	0
Total first improvement	3406	10	0

THE potatoes will pay their own expences and 40s. an acre profit. The crops of oats, on an average, 40s. an acre profit, after paying all their own expences. Lord Altamont could have this price as rent, for liberty to sow them.

	£.	s.	d.
Profit by potatoes	1280	0	0
Ditto on oats, three crops, at 40s.	3840	0	0
	5120	0	0
Deduct seven years interest at six per cent. on 3400l.	1428	0	0
Neat profit	3692	10	0
Original expence	3406	10	0
Profit	285	10	0
Let, on an average, at 15s. an acre, which is what Lord Altamont is clear is the lowest price it can be reckoned at; it is per ann.			
	480	0	0

AN income of 480l. is created without expence. This for a landlord: if hired at 2s. an acre, the account will be the same, except the deduction of that for rent. I forgot to observe, that when the heath dies, which it does in three years, then daisies appear, and white clover, which are signs that the land is fit for culture. There is something very extraordinary in this circumstance, that laying on a powerful manure for cultivated vegetables, should prove poison to the spontaneous growth. It is only to be accounted for by supposing that the heath is nourished by an acid in the soil, which being neutralized by the alcali, is no longer the food of that plant, after which it dies for want of its usual support. It is very remarkable, that all the wild mountains in this country have marks, and to a great height of former culture, mounds of fences, and the ridges of the plough. Lord Altamont's great grandfather found the estate a continued forest; in 1650 these woods were of much more than a century's growth, so that no cultivation could have been here probably of 300 years. There is a tradition in the country that it was depopulated by the plague, and upon that the wood sprung up which formed those forests. At present, there is no wood on any of the hills, except immediately about Westport.

I OBSERVED, besides this great range of mountain improvement, that Lord Altamont prosecutes various parts of husbandry with much spirit. He has been at great expences in introducing the best breed of English cattle. I had no slight pleasure in seeing great composts formed of dung and earth, and sea ore, well mixed together, and then carried into his meadows.

dows. Stands were also building for corn stacks, and under them standings for cows or oxen, and vaults for potatoes: they are executed in the most perfect manner. A sort of oat he has introduced into cultivation, a few grains of which he got by accident, cultivated them carefully in drills, and has got a large quantity now. They are of so great a body that he calls them patagonian oats. He favoured me with a few for seed. In introducing the linen manufacture, his Lordship has made great exertions. He found it to consist principally in spinning flax, which was sent out of the country, without any looms in it, except a very few, which worked only for their own use. In order to establish it, he built good houses in the town of Westport, and let them upon very reasonable terms to weavers, gave them looms, and lent them money to buy yarn, and in order to secure them from manufacturing goods, which they should not be able readily to sell, he constantly bought all they could not sell, which for some years was all they made; but, by degrees, as the manufacture arose, buyers came in, so that he has for some time not bought any great quantity. The first year, 1772, he bought as much as cost him 200l. the next year, 1773, 700l. the next, 1774, as much as 2000l. and in 1775, above 4000l. worth: and this year, 1776, the number of buyers having much increased, he will not lay out any more than 4000l. the same as last year. This year he has also given such encouragement as to induce a person to build and establish a bleach-green and mill. The progress of this manufacture has been prodigious, for at first Lord Altamont was the only buyer, whereas for two years past there has not been less than 10,000l. a year laid out at this market

market in linen; yet with all this increase, they do not yet weave a tenth part of the yarn that is spun in the neighbourhood. The linens made are all coarse, generally 8 to 1100, from 9d. to 1s. 1d. a yard. They are double webs of 42 yards and upwards, and 32 inches wide; and they earn 1s. a day by weaving it, on an average of workmen. It is of $2\frac{1}{2}$ to $3\frac{1}{2}$ hank yarn, and the spinners earn $2\frac{1}{2}$ d. to $3\frac{1}{2}$ d. a day by spinning it. The price of it has been in five years gradually rising from 4d to 7d. a hank. All of it is spun of flax raised in the country.

THE poor in general live on potatoes and milk nine months out of the twelve, the other three months bread and milk. All of them have one or two cows; fish is exceedingly plentiful, particularly oysters for 1s. a cart-load, and sand eels, yet they eat none; herrings, however, are an article in their food. In their domestic œconomy, they reckon that the men feed the family with their labour in the field, and the women pay the rent by spinning. The increase of population is very great. Lord Altamont is of opinion that the numbers have doubled on his estate in 20 years.

THE farms around Westport are in general large, from 400 acres to 4 or 5000, all which are stock farms; and the occupiers relet the cultivated lands, with the cabbins, at a very increased rent, to the oppression of the poor, who have a strong aversion to renting of these tierney begs. The soil in general is a cold spewy stoney clay and loam; the best lands in the country are the improved moors. Rents rise from 2s. for heath, to 16s. for good land. Average 8s. about.

about three-fifths of the country unimproved mountains, bog and lake. Great tracts of mountain, but bogs not very extensive. Clara island 2,400 acres, at 300l. a year; Achill 24,000 acres, at 200l. a year; Bofin 100l. a year, and is above 1200 acres. It belongs to Lord Clanrickard. The course of this country, 1. Potatoes, manured with sea-weed: this is so strong that they depend entirely on it, and will not be at the trouble to carry out their own dung-hills. On the shore, towards Joyce's country, they actually *let their dunghills accumulate, till they become such a nuisance, that they move their cabbins in order to get from them.* A load of weed is worth, at least, six loads of dung. They do not take half what is thrown in. On the shore, open to the Atlantic, there is a leather sort of *fucaus*, which comes in in the spring. The kelp weed grows only where it is sheltered. The coast of Lord Altamont's domain and islands let for 100l a year for making kelp. Courses:

- | | | |
|--------------|--------------|--------------|
| 1. Potatoes. | 1. Potatoes. | 1. Potatoes. |
| 2. Barley. | 2. Barley. | 2. Barley. |
| 3. Oats. | 3. Oats. | 3. Oats. |
| 4. Oats. | 4. Flax. | |

POTATOES they measure by the barrel of 12cwt. and in each barrel 16 pecks of three quarters each. They plant 10 bushels, of 3cwt. each, at the average price of 12s. a barrel, or 1s. per cwt.

EXPENCE

EXPENCE OF AN ACRE,

	£.	s.	d.
Manuring with sea weed - - -	1	10	0
Rent - - - - -	0	8	0
County cefs and parish charges - - -	0	1	0
Seed - - - - -	1	10	0
Planting, 30 men a day - - -	0	15	0
Shovelling, 10 ditto - - -	0	5	0
Weeding, 3 ditto - - -	0	1	6
Taking up, and carrying home, 60 men -	1	10	0
Sorting, &c. 3 men - - -	0	1	6
	<hr/>		
	5	13	0

They will not carry sea weed above a mile;
if dung is used, the expence will be - 2 2 0

PRODUCE.

Twenty barrels, or twelve tons, at 12s.	12	0	0
Expences - - - - -	5	13	0
	<hr/>		
Profit - - - - -	6	7	0

A MAN, his wife, and four children, will eat a bushel of 3 cwt. every week: in 39 weeks, therefore they eat 117 cwt. or 5 ton, 17cwt. this is just half an acre for the family. Of oatmeal, the common allowance is a quart of oatmeal a day for a labourer. A mower that is fed is allowed that quantity, and 6 quarts of butter milk a day, or as much *bonny clobber*. To explain what this is I must observe, that they set the milk three days for the cream to rise, and having then

then skimmed it, the milk that remains is as thick as blamange, and as sour as vinegar, and this is bonny clobber.

Of barley they sow six pecks, each 21 quarts, and the crop is generally from 20 to 30 fold, or at 25 it is 150 pecks. Of oats they sow a barrel of 24 stone per acre, and they get six such barrels. Of flax they sow 40 gallons, and it will sell in common *on the foot* at 8l. they find that it enriches the land. No wheat sown but by gentlemen for their own consumption. *They burn their corn, instead of threshing it.* The grazing system is generally the succession, buying in at year olds, or if the lands are very bad, two year olds, keep them till four year olds, and then sell them lean at Ballinasloe. They give 10s. 6d. to 3l. 10s. for yearlings; average 40s. For two-year olds, they give 3l. They sell for 6l. what they gave 2l, and for those they gave 3l. they will sell at four year old for 6l. They keep but few sheep, but generally buy year old wethers; *boggerills* in may, at 8s. to 10s. each, shear them and turn to the mountains; bring them on to their arable lands in winter, shear them again the following year, and send them to the mountain again, and in the following summer shear again, putting them on their best pastures, and selling fat at Ballinasloe, at 15s. or 16s. their fleeces 5lb. at 1s. a pound. There are some dairies, as far as ten or twelve cows, which are employed for butter. Twenty years ago cows were let for 1cwt. of butter for the year, and rearing the calf. Very few swine kept, and of a bad kind. They plough all with horses, four in a plough, directed by a man, walking backwards, who to make them move forward, strikes the beasts in the face.

Young

Young colts they harrow with by the tail. Twelve horses are necessary for one hundred acres in tillage. No wonder.

LORD Altamont mentioned descriptive of Mayo husbandry, acts of parliament to prevent their pulling the wool off their sheep by hand; burning their corn; and ploughing by the tail. In hiring and stocking farms, the common computation is, three rents for a grazing one. Land sells at twenty-one and twenty-two years purchase, at rack rent. Rents have fallen within five years, 1s. in the pound; they are at present on a balance, with a tendency to rise. Tythes are compounded in the lump. Leases, three lives, or thirty-one years, also twenty-one years. Much land let to those who re-let. The rents in Mayo are trebled in forty years. No emigrations. Farms are generally let in partnership, but the term *Rundale* not known. Labour generally done by cottars, who have land let to them, or grafs for cows, under agreement to work for the landlord. Provisions, which the poor eat, not risen, but butchers meat doubled. They pluck their geese alive every year. All carriage done by horses with baskets: the bottoms of which fasten with sticks, and let out the load. The industry of the people very much increased; an astonishing change in industry, sobriety, &c. and are in much better circumstances in every respect, than twenty years ago. They have a practice common among them, which shews an increasing civility in the change from Irish names to English ones. Even surnames, for instances *Stranaghan*, Irish for *birds*, which they call themselves. *Markahau*, Irish for a *rider*, which name they take; *Cullane*, Irish for a *whelp*, which name they assume; others call themselves

selves *Gollins*. *Conree*, Irish for a king, which they call themselves; *Ruddery*, a knight, and many others. Among Lord Altamont's labourers, is one Mowbray Seymour; his great grandfather was master-worker of the mint at London. There are many Mortimers, Piercys, &c. and within a few years, a Plantagenet, in the county of Sligo. Eagles abound very much in this country, and do great mischief, by carrying away lambs, poultry, &c. they also watch the salmon jumping, and seize them when out of the water, by darting with that celerity, of which they are such masters; this is so common, that men with guns are set to kill and frighten them.

AUGUST 30th, rode to Rosshill, four miles off, a headland that projects into the bay of Newport, from which there is a most beautiful view of the bay on both sides; I counted thirty islands very distinctly, all of them cultivated under corn and potatoes, or pastured by cattle. At a distance, Clara rises in a very bold and picturesque stile; on the left, Crow Patrick, and to the right, other mountains. It is a view that wants nothing but wood.

AUGUST 31st, to Newbrook, over a various country, part waste, and much cultivated. About Castle-Burk, the road crossed a most remarkable stoney natural pavement, regularly surrounded with grass trenches, all on a flat. Passed the ruins of a very fine abbey; reached Holymount, Mr. Lindsay's, a very considerable grazier; about which place, the soil is in general, a stoney clay, from six inches to two feet deep, on lime-stone gravel; it is quite dry sound land, and the stones are lime-stone. Lets from 12s. to 15s. an acre. Farms are very extensive, up to

to three or four thousand acres, all stock onts, with portions re-let to cottars, who are the principal arable men here. They are in the succession way, buying in year-olds at 40s. keep them till three or four year olds, sometimes only keep them two years, they pay about 20s. per annum, on a medium. They are sold, at whatever age, for stores to the graziers in the rich countries. Another system is, to buy in cows in May, at 2l. 12s. 6d. to 3l. and make about 1l. 10s. profit. A cow will take an acre, but there will be an after-grass, worth 5s. an acre, for sheep. The sheep system is breeding and selling three-year old wethers fat, the wool, and the culled ewes. Above half the county bog, mountain, and lake. Folding sheep, I suppose, will come in here, for they have got very near it. They drive their sheep to a spot of grass, which they let for grass potatoes, at 3l. 10s. to 5l. an acre, doing this at night, till the land is well dunged. The crops are eight tons on an average :

1. Potatoes. 2. Bere, if sanded, 8 to 10 barrels. 3. Bere. 4. Oats, 8 to 10 barrels. 5. Oats, 8 barrels. 6. Oats, 8 barrels. 7. Flax. 8. Wheat. Sand for the bere, if for potatoes the sand does hurt, unless it lies two or three years on the grass. 3 cwt. the barrel of bere, 4 cwt. of wheat.

SEPTEMBER 1st. to Tuam; dined with the Archbishop. All this country is a good sound lime-stone land, and famous for sheep; but upon enquiry, I found it did not materially vary from the neighbourhood of Holymount, or Moniva, whither I was going in the evening. Reached Mr. French's, at that place, to whose very obliging attention I am indebted

ed for the following interesting particulars, and a reception I shall long remember with pleasure. He has improved 60 acres of bog, and 290 of moor, which he began in the year 1744, with a great red bog, from 20 to 30 feet deep, so wet and spongy, that no turf, fit for burning, could be found to cut in it, so very wet and loose, that a man could not go on it without jumping from tuft to tuft; no heath on it, except at the verge; the only spontaneous growth red and white moss.

THE following account of this great improvement, Mr French sent to the Dublin Society. It was never published. I insert it therefore with the utmost satisfaction.

B O G RECLAIMED.

Copy of a letter to the Dublin Society, for which they granted him a gold medal.

DEAR SIR,

Moniva, Jan. 24th, 1769.

ALTHOUGH I have not hitherto applied for a medal or premium, yet for above twenty years past, during which time the works I describe have been carrying on, I have observed the useful hints of the Dublin Society, tried many experiments recommended by them, and have followed their instructions, which have turned to my pleasure, profit, and advantage. I observe, that it is necessary to lay before the Society the quality of the bog, and the method pursued in reducing it, but fear their patience may be tried upon the present occasion.

THE castle of Moniva, now part of my dwelling-house, is very ancient, and was built for a place of defence;

defence; it stands upon a dry gravelly soil, which, like a peninsula of five acres, run between two very high, red, deep, wet bogs, impassable for any beast of burthen, very difficult even for men to pass. The bog, on the north side, contained above 13 acres; the other, on the south, is of a great extent. The east side of the castle was defended by a deep winding river, a few perch beyond which was a large extent of extreme wet red impassable bog, so high as to prevent, from the lower rooms of my house, a view of the country beyond it, and of a great part of an high island of land of about 15 acres, which lay towards the middle of the bog. A large old wood, which stands on 111 acres, in a semicircular form, partly round a lawn of 70 acres, upon a gentle rising dry ground, defended the west of the castle. The river, on every heavy rain, overflowed to the verges of the bogs, and very near to the castle. That I may not assume too much of the following improvements to myself, I must let you know, that my father formed a scheme to turn the course of the river through the great east bog, which was from 26 to 28 feet above its level, and made a considerable drain through the bog for the purpose. He also made a deep mearing drain, near a mile in length from the river, through the large south bog, and divided about 90 acres thereof, by cross wide and deep drains, into 5 divisions, and by two drains through the north bog, laid out an approach, 7 perch wide, to his house, but his life proved too short to execute his extensive scheme.

UPON his decease, in the year 1744, I first pursued his plan to turn the course of the river, widened the drain made by him to 27 and 30 feet, according to the height of the bog, and sunk the drain to the gra-

vel, where I could do so, and in some parts two and three feet deep into the gravel, which proved excessive hard. In other parts of the drain, the bottom of the bog was much lower than the level of the river, in which parts, as the water could not be drained off, there was no digging to the gravel. The sides of the drain were so high, that I was obliged to cut them in some parts into benches, in the form of stairs, to prevent the men at the bottom from being overwhelmed, which would once have happened, only that a man standing on the surface, observing the bog to burst, gave the alarm, by which he saved the lives of several men; for in a few moments many perches in length of the drain were filled up to the top, more difficult to be again shovelled out, than if it had not been cut before; it required sometimes four or five men standing upon different benches, to convey what the lowest shovel took up to the top, besides the necessity of removing the stuff from the edge of the drain, to prevent the frequent burstings in of the bog. The greatest difficulty was to draw up prodigious large roots of fir trees, which lay firmly fixed and very sound, just over the gravel, at the bottom of the bog all along the drain. This I effected, by laying two large beams from the top, so as to form an inclined plain to the bottom; then drove down into the bog above, a strong beam perpendicular, and made it firm by stones; to this, I fixed a great pulley, and another pulley to the root below, first separating it by hatches and iron crows from its large arms, which run under the bog: then by running a cable through the pullies, the united strength of 16 or 20 men drew up the largest roots along the sliding plain. The men, as they drew up the roots, usually stood upon the firm gravel at the bottom

bottom of the drain, the top being in many places too soft for footing.

HAVING compleated the drain or water-course, which is above ninety perches in length, through the great east bog, I set about making a strong bank, from the east to the south bog, 20 perches in length, and from 15 to 50 feet broad across the old river, which was 16 feet deep. For this purpose I drove down a row of long wooden piles, and a second row across the river, and made the bank by filling up the intermediate space with sods well rammed and pressed down.

I had the satisfaction to observe, when I had made a second bank, at the lower or north end of the new drain, to prevent the water from returning back into the channel of the old river, but at much less expence than the former cost, that the river run its new channel, that I immediately gained about 10 acres of fine bottoms for meadows upon each side of the old river, and as the new river was three or four feet higher than the old, I obtained a fall for a mill, which I observed might be increased, by running a deep drain through the north bog for a tail race, which would also contribute to reclaim that bog: this I perfected, run it 11 feet wide down to the gravel, 94 perch in length, and in some parts into the gravel, to preserve the level. I built a bleach mill, the first built in the province where the fall lay, and the bog since reclaimed about it, is part of the green for bleaching linen.

FROM my new river, to a lake which lay about 230 perch to the east in the great bog, I cut a large

drain of that length, to supply my mill with water from the lake, when the river should prove low in summer. This work was thought to be impracticable, the bog between being many feet higher than either the lake or the river, but I know that the lake was higher than the river; indeed, for the first and second year, it proved impracticable, the drain, though laid out above ten feet wide, still filling up as it was made: but by perseverance, and still opening the drain at the end where the fall lay, at length the lake, to the surprise of many, run into the river, and gave me a new command of water. The whole bog, in ten years time, sunk amazingly, and disclosed to me, from the windows of my house, the prospect of a country which could not be seen from them before; but works of this kind require patience and perseverance: for at the end of three years, when curiosity led me to see the effects of a great flood after a very heavy fall of rain, I had the mortification to see the great bank, which I made across the river, float away, like a boat before me. The neighbours, who for years past had insisted that my father and I had undertaken and impracticable work, applauded their own judgment upon the occasion, and endeavoured to dissuade me from any further pursuit; but instead of following their advice, I immediately provided a boat, (for horses and cars could not, without great difficulty, be brought to the place) and with its assistance conveyed stones sufficient to fill up the channel of the old river, the breadth of the bank, and afterwards, by bog stuff brought by boat, and sunk in the front of the bank, I made it staunch; then raised it by sod work, and planted trees on the top of it, by which means it has remained firm, and answered my whole design for these nineteen years past. When
I erected

I erected my mill, and made sluices to keep up the water for it, I observed that my new river thereby became navigable for a boat, as well as the old river, and that it might prove very advantageous for the conveyance of manures, if a communication was made from one to the other; but this was difficult, as the new river, in time of flood, was four or five feet higher in its level than the old river, yet I overcame the difficulty, by cutting a navigable line 16 perch in length, where was firm gravel at the bottom, from river to river, and built a water-lock at the edge of the new river, where I found a firm foundation at the bottom of the bog. It answered my purpose, gave me a great command of water; for by opening the sluices of the lock, I can at any time overflow my meadows, which lie on each side of the old river: it has stood now for about 18 years. When I observed the advantages which arose from being able to convey manures by boat, I proceeded, and cut a navigable line 30 perch long, 20 feet wide from the new river, above the great bank into the south great bog, and cut another navigable line 32 perch long, 12 feet wide, from the old river northward into the north bog, and another navigable line through the same bog westward, in a winding direction, for the sake of beauty, 50 perch long, and 20 feet wide; and cut another line 21 perch long, and 14 feet wide southward, from the western line, which brings my boat into my farm-yard, and enables it to proceed through all the navigable lines which communicate with each other. Several springs of water rose from the uplands, which lye west of the north bog, and probably were the cause of that bog in the before-mentioned navigable line, which run towards these springs. I built a second water-lock,

and turned an arch over it, as it stands in one of the approaches to my house; by shutting the gates of this lock, the springs which run into the river, being intercepted, a sheet of water overspreads near two acres in my lawn, which lies between the wood and my house, and the boats are thereby enabled to go to the highlands, where there is plenty of gravel to manure the bogs. I made my navigable lines by banking out the water, and keeping the drains empty by screw-pumps of about 13 feet long, which were worked by two men, relieving each other day and night, which my own carpenter made, and also built my locks before he had seen any thing of the kind, until he admired his own works. Whilst I was executing the works which I have described, I proceeded to reclaim the bogs adjacent to them. The lines I have mentioned divided the north bog into four parts, which I inclosed by smaller drains into so many little parks; it is entirely reclaimed, and has been for several years past under tillage and meadow, and yet, now, though it has subsided considerably, an iron borer of 18 feet, does not in several parts thereof reach the bottom of the bog: it was full of holes, out of which turf for fuel had been formerly cut, the levelling of which added much to the expence of reclaiming. The east bog, from the island to the old river, is all reclaimed, except two or three acres towards the south, and has likewise been under tillage and meadow for some years past. I reclaimed these two bogs, by covering the surface with limestone gravel, then laid a coat of dung over it, and planted potatoes upon the dung; the next year sowed oats, or rye and grass seeds, and the following year mowed the produce: the bog was so wet, that I cut several small drains, which I since filled up, when they

they had performed their office. To lay the gravel on, I was obliged to make roads with hurdles, to bear up small horses, which carried the gravel in baskets upon their backs, and to remove the hurdles from place to place, as occasion required; the boats laid the gravel and manures upon the sides of the rivers and the drains, from whence the horses conveyed them. The subsiding of this bog is remarkable; if I should say from fifteen to twenty feet, I think that I should not exceed: when I first cut the new river, the bog rose in a hill between it and the old river; there is now a fall the whole way, except where the hill stood, which is the lowest part. The bog is now so firm as to bear a loaded cart. I sloped the sides of the hollows, where for some years I had cut turfs; being advised to cut the bog away, but that would be the work of ages; and where the surface was cut off proved most barren, and required most manure: these hollows are now little green vales; and posterity will puzzle, as some do at present, to find the cause of them. After the first crops were taken off, and mowed for two or three years, I observed little tufts of heath began to appear in the meadows; where these appeared, some parts I tilled again; put dung upon others; but lime effectually banished them; and so did a mixture of kelp and ashes, the refuse of the bleach-green, which proved the richest manure. I spread river-mud upon one or two acres, which had little effect, only produced a sedgey spikey grass, until dung was laid over it; marle had somewhat a better effect than the river-mud, but marle, mixed with dung, proved very good; lime, dung, or kelp, broke fine into powder, proved the best. I reclaimed above one acre, by gravelling, and laying a coat of fresh lime over the

gravel, and planted potatoes upon the lime, without any dung; the potatoes were small, and lay thin when dug out, but the corn which succeeded them, proved very good, and the bog was thereby well reclaimed. It should be observed, that all the stone and gravel of this country is lime-stone. I tried to reclaim part by burning, but the red bogs, which mine were, proved too wet and spongy; the ashes were white, and so light that they had little effect. In the manner I have described, I reclaimed about five acres of the south bog, which lay within the navigable line; but not being able to pursue my navigation into this bog, the gravel at the bottom of the bog rising above the level of my upper river, without considerable expence, and the addition of another water-lock, I made a firm gravel road into the bog, first dividing one of the large divisions, made by my father, by two cross drains ten feet wide, into four divisions, which made the bog pretty dry; I then laid dung, two or three inches thick, upon the surface of the bog, without any gravel or other manures under: I observe, that the crops of potatoes, corn, and meadow following, were full as good as those where the gravel was first laid on, which in wet bogs sink too suddenly; I would therefore advise, and intend to pursue, the laying on of gravel after the bog has been mowed for two or three years: the expence of gravelling an acre at the first, is, at the least, from four to six pounds; and as you proceed further into the bog, the expence must increase; therefore where dung is to be had in plenty, it is the best material for reclaiming a bog; but I think that composts made with lime and earth mixed, or lime and moor, may answer the end of dung, which I have not yet sufficiently tried, but intend so to do.

To

To enumerate several other drains which I made in the east and south bogs, to prepare them for reclaiming, would prove too tedious. I usually cut them ten feet wide; but it is difficult in a wet bog to ascertain the depth of a drain until the bog has subsided for years. In making the drain, which I have mentioned from the lake to the river, 30 or 40 men working in the same part of the drain for four or five days without intermission, except at night, could not bring the drain, in the evenings, to be deeper than from one to two feet deep, and both the overseer and men were all so out of patience, that they were with difficulty persuaded to continue the work; but as I rode round the bog, I observed that the bog was subsiding, and that they were gaining the level, though they did not perceive it; for the slush flung by the shovels out of the drain pressed down the bog and squeezed out the water into the drain which ran off, as I begun where the fall lay; the bog was so soft that the men were obliged to stand upon boards as they worked, to prevent them from sinking: the bogs which I first reclaimed are still subsiding. I had, the last summer, 32 acres of the bogs, which I have described, all under tillage and meadow; I also mowed ten acres of the bottoms on the river sides, between the reclaimed bogs; and other ten acres of bottoms by the same river, made meadow by banks cast up round them, to guard against floods, planted with alder and fallows: I have six acres more of the east bog reclaimed by a coat of gravel only, never tilled, but reserved for pasture; but they are far inferior to the tilled bogs, and will not be meadow until covered with other manure, and tilled. I cannot ascertain the depth of several parts of my reclaimed bogs, as my borer of 18 feet long does not reach

reach the bottom of the north and east bogs; the south bog is all 12 and 13 feet deep: but towards the verge they are shallower. The navigable lines which I have described, encompass 31 acres, except on part of the west side, where my house stands; these I call my garden or small farm, through which the old river winds; clumps of spruce fir, beech and alder, grow well on the sides of the new river, where gravel was thrown on the banks from the bottom when it was first made; the broad-leaved elm interspersed through the meadows reclaimed from the bog, also thrive; I have two small groves on each side of the water-lock, of a spontaneous growth, from the deep reclaimed bog, consisting of quicken or mountain ash, birch, holly, and fallow, some of which are from 17 to above 20 feet high. In making my navigable line, which runs west to the edge of my lawn, I discovered by my borer that a bed of white marle, at the depth of 16 feet, lay under the north bog; the bed of marle proved to be five feet thick, under which lay a stratum of gravel, from six to nine inches thick, under which stratum of gravel lay another bed of marle, four feet thick. In the last dry summer, by the aid of my screw-pumps, I raised a great quantity of this marle, which leads me to claim a medal for reclaiming dry heathy mountain, upon which, after ploughing, I spread the marle. But I fear that I have tired you, as I have myself, and shall, for the present, only present my respects to the Society, and assure you that I am,

Dear Sir,

Your most obedient servant,

ROBERT FRENCH.

It

It may be objected, that the works were begun previous to the publication of the premiums; I doubt whether it be possible to reclaim such bogs in less than eight or ten years; the water must have time to ouze from sponges, which such bogs are: to reclaim them very expeditiously would exceed the expence of a private fortune.

To the Rev. Peter Chaigneau,
assitant secretary to the Dub-
lin Society.

MR. FRENCH remarks, that the expence of improving bogs, equally spongy and wet, with this, is very considerable, for the drains will for some time fill up almost as fast as made. When the draining is finished, the main drains should be left five feet deep, and the breadth just sufficient to keep the banks up: cross drains, of a smaller dimension, must be made, which, when the bog is perfectly drained, may be filled up again. As to the expence, he observes, that it must necessarily vary greatly; but the very worst sort may be completely done for 6l. an acre. Manuring with gravel, lime, or clay, may in general be estimated at 6l. Then Mr. French would by all means plant potatoes, in the trenching manner, for the sake of mixing the manure, which is laid on with the surface of the bog, and also for the use of the trenches as surface drains. The crop of potatoes, if a moderate quantity of dung is spread for them, will be equal to any in the country, that is, worth 10l. an acre; but if no dung, they will not more than pay the expence of seed, planting, and taking up. In the spring after,
dig

dig it slightly, level the trenches, and sow oats; the digging will not cost more than 10s. an acre. The crop of oats will be 12 barrels, or rye, will be a great produce. With this corn the grass seeds should be sown; rye grass (*lolium perenne*) and white grass (*holcus lanatus*) do well; common hay seeds good. The first year a car must not go on, but the hay brought off by men. The second year it will bear cars, and would then let for 10s. an acre, for three years only; 21s. an acre for hay. After that, a fresh manuring, with a compost of lime and earth, or lime and gravel, and then would let at 15s. If the land for potatoes is well dunged, the poor will pay 4l. an acre for it; and the hay, instead of 21s. will let at 3l.

IN relation to his mountain-moor improvement, the state of the soil before improving was that of continued heath, (*erica vulgaris*) with great quantities of lime stones on the surface. Mr. French, in the first place, ploughed it with six bullocks, which did not do more than one-fourth of an acre a day, as the roots of the heath made it strong work. As they turned up the stones, or were impeded by them, they were drawn away in cars to make the walls. Left it after the ploughing from half a year to a year, and then broke it, cross-ploughed, and harrowed, in all four ploughings, after the last, harrowed it smooth, and limed. Began with 60 barrels an acre, but increased it to 100, and to 200, and found the crops better and better, in proportion to the quantity. Upon the liming sowed the wheat, and harrowed it in. The crop has been generally from five to seven barrels an acre. The following year either barley or oats; of barley the crops have been middling, about

8 barrels. Of oats, 12 barrels. After either the barley or oats, another crop of oats, equally good, and with that sowed hay seeds, or rye grafs and clover. Before the improvement it let at 4s. 9d. 25 years ago, and if the same heath was to be let now, it would be worth 8s. After the oats abovementioned, has let it readily at 14s. Dividing the lands into divisions of from 15 to 20 aced pieces, clears them of stones, and the expence of the walls, is,

	s.	d.
Drawing the stones - - - -	2	6 per perch.
Building dry - - - -	1	1
	<hr/>	
	3	7

If coped and dashed, the additional

expence will be - - - -	2	6
	<hr/>	
	6	1

They are all lime-stone lands, and make very fine sheep-walks. Before the improvements very many sheep died on these grounds, of the red-water, but since the liming this has not happened; nor would it before give flax, but now very fine.

MR. FRENCH burns the lime in perpetual kilns with turf, laying in the turf and stone in layers, the same as culm, and all expences included, amount to 4d. a barrel roach, of 32 gallons. Two cubical yards of turf will burn one cubical yard of stone. If the turf is very good one and an half will do. He tried French kilns, in which he burned 1500 and 2000 barrels, but found it very uncertain, frequently having

haying the stone come out unburnt. A kiln of 1500 barrels, comes to 25l. but often it ran to 40l. he has upon the whole, found it far better to use the other sort, which are cheaper, and more certain. Another sort of mountain land, is the wet boggy sort, one to four feet deep, which he improved by digging off almost all the bog for lime; then ploughed it with six bullocks, and let it to the poor from a guinea to 30s. an acre, for them to burn, harrow, and plant potatoes; after which they pay as much more for a crop of oats, then limes it, takes another crop of oats, and sows grasses with it; after this improvement lets as well as the other. White marle, from under a bog, Mr. French tried, for improving 14 acres of dry mountain land; the effect was much the same as that of lime, but more expensive from the difficulty of getting it. In the year 1744, when Mr. French came to his estate, there was no other linen manufacture than a little *bundle* linen, merely for their own consumption, with no other spinning than for that, and even for this, there was not more than one loom in 100 cabbins. In 1746, he undertook to establish a better fabric, and with more extensive views. He first began by erecting spinning schools, and sowing flax, 21 acres of which he sowed on his own account. The linen board gave at that time 1d. a day to all children that went to any spinning schools, which was of use; but the providing flax Mr. French found of the greatest use. In 1749, he established eight weavers and their families, and the same year built a bleach mill, and formed a green, and to carry it on to advantage, sent a lad into the North, and bound him apprentice there, in order to learn the whole business. Upon his return, he managed the manufactory for Mr. French, buying the
yarn,

yarn, paying weavers for weaving it by the yard, bleaching and selling it. In this manner it went on for 15 years; but as in this state it was dependent on Mr. French's life, he enabled this manager to take the whole upon his own account, binding him to keep every weaver on the estate employed, whatever might be the number. The progress of this undertaking, united with the agricultural improvements, will be seen by the following returns of the Moniva estate, at different periods.

In 1744. There were three farmers, and six or eight shepherds and cow-herds.

In 1771. There were 248 houses, 90 looms, and 268 wheels.

In 1772. 257 houses, 93 looms, and 288 wheels.

In 1776. 276 houses, 96 looms, and 370 wheels.

Here, in a few words, is the progress of a most noble undertaking; and I should observe, that it is doubly beneficial from one circumstance. All these weavers are mere cottagers in a town without any land, except a cabbage garden, by which means they have nothing to do with farming, but become a market to the farmers that surround them, which is what all manufacturers ought to be, instead of spreading over the country, to the destruction of agriculture. Another circumstance in which Mr. French has given a new face to Moniva, and its environs, is by planting; he found a considerable wood of birch, which being an unpleasing tree, and not improving, he cut them gradually down, and planted oak, elm, and beach, with various other sorts; he began this 30 years ago, and no year passes without his making some new plantation.

tion. By properly managing this wood of 111 acres, he has made it pay him 150*l.* a year ever since, and there is now more than thrice the value of timber in it, to what there was when he began. Whatever he has planted has answered well, but the growth of the beech is the greatest. That of the oak is very great, and more flourishing than ever Mr. French expected to see them at the time of planting. The broad-leaved elm thrives very well upon the bogs; after they are cultivated. Mr. French has tried most sorts of trees in rows along the hedges, but none of them have succeeded, the west winds cut them in pieces; since which he makes inclosures, and plants them thick.

I OUGHT not to forget observing, that Mr. French supports a charter-school at his own expence, wherein are from 20 to 40 children, constantly supported, cloathed, and taught to read and write, and to spin and weave.

FARMS around Moniva consist, principally, of large stock ones, from 200 to 500 acres, with very few cabbins upon them; the tillage of the country is principally carried on by villagers, who take farms in partnership. Mr. French's are generally from 20 to 130 acres. There will sometimes be from 10 to 30 families on a farm of 200 acres; but Mr. French finds that they do not thrive well if there are more than six families to one farm. The soil to the west of Moniva, is a lime-stone gravel, mixed with a clay, some of it upon clay: to the east it is a deeper and richer clay, and lime-stone all the way to the Shannon. The whole county lime-stone, except the mountainous

mountainous tracts on the west, beyond Loch Carril, and the mountains to the south of Loch Rea. Rents in this neighbourhood rise generally from 12s. to 16s. except old leases, which are 6s. or 7s. The richest part of the county is between Lochrea and Portumne, thence to Eyre-court, Clonsfert, and Aghrim. The third of the county is bog, lake, and unimproved mountain; but most of the latter yields some trifling rents, the whole third, perhaps 3d. an acre; the other two-thirds 12s. at an average. The isles of Arran contain 7000 acres, belong to John Digby, Esq; and let at about 2000l. a year. The great tract of mountain is the three baronies of Eyre Connaught, Ross, Ballynahinch and Moycullen; they are 40 miles long, and 15 broad, and are in general uncultivated. The principal proprietors are, Robert Martin, Esq; Thomas French, of Moycullen, Esq; and Patrick Blake, Esq; of Drum; — Lynch, of Barna; — Geohagen, Esq; of Bowown; — Lynch, Esq; of Drumrong; Sir John O'Flaherty, &c. Mr. Martin has the largest tract; he has let to Mr. Popham, 14,000 Irish acres, for 3 lives, at no rent at all; then three lives more at 150l. a year; and after them for 61 years at the same rent; and Mr. Popham has some men at work upon improving, from England and Leinster*. There is lime-stone gravel upon a part of the land, but not generally in Eyre Connaught, any more than lime-stone; at least according to common report.

* These works have since been discontinued with many other undertakings of the same person.

Courses of Crops about Moniva.

1. Potatoes. 2. Barley. 3. Oats. 4. Oats.
 1. Potatoes. 2. Flax. 3. Oats. 4. Oats.

THERE are some good tillage farmers towards the Shannon, who sow grass seeds. They also sow successive crops till the land is exhausted, and leave it for some time to graze itself. No ploughing or harrowing by the tail, nor any burning the corn instead of threshing, but these practices were very common 30 years ago. The measure of potatoes is the barrel of 42 stone; five plant an acre, the average price 6s. or 8s. at the beginning of the season; 10s. or 12s. at the latter end. The average produce 25 barrels, or 10. Oats yield about 8 barrels. Of flax, a hogthead sows two acres. It is but lately that they have saved their seed, but it is now coming in; a good common crop 4cwt. of scutched flax, and the medium price 40s. a cwt. There are considerable improvements of mountain, and some of bog, that have been carried on by the poor villagers. They dig and burn the mountain, and get by that means very fine potatoes without dung, paying 20s. an acre for it. If they have the land to themselves they will, after the potatoes, get good wheat, and after that several crops of oats, till the land is exhausted. These village farmers, I remarked, as I went through the country, were industrious in forming composts of boggy moor, turf, and lime-stone, with what dung they can raise. They were now making them ready against the winter's dung; these are for potatoes the following spring, and they find it answer so well that the practice increases very fast. Such of them

them as are near the bogs, Mr. French gives the bog to them for 10 years rent free; and then they pay him 10s. an acre for it. They drain, manure with lime-stone gravel, and a little dung, and plant potatoes, getting fine crops and good corn afterwards. In one of the bogs which a village was cutting away, the men called Mr. French to shew him the old ridge and furrow at the bottom, which he found perfect. It was four feet deep: that this country was once generally cultivated, there are other signs. There are vast numbers of lime-stone gravel pits among the mountain heathy lands, though there is not the least tradition when they were used.

The principal stock in this country is sheep for breeding, the sale being wethers, which they sell fat at Ballinasloe; and wool, of which they clip from the ewes 4lb. and from the wethers 5lb. sells now at above 1s. a lb. Mr. French remembers the price of wool, 50 years ago, at 6s. and 7s. a stone; 1744 was reckoned a very high year, and he sold 29 bags, at 10s. 6d. a stone: but as he got out of stock, he has not since had more than two bags. In 1745, &c. it fell to 8s. a stone. The great rise of the price of wool, Mr. French attributes to the low price of spinning and the increase of tillage. The stock farmers, who are good managers, have two farms, one as a dry one, in this neighbourhood for winter, and another in the deeper richer lands in the eastern part of the county, for summer feeding and fattening. Three year old wethers, from the light soils here, sell from 15s. to 25s. each. It is reckoned good land that will support three sheep per acre the whole year round. The system of grazing is to buy

Z 2

yearlings,

340 COUNTY OF GALWAY.

yearlings, from 35s. to 3l. 3s. and sell out at four year old, from 4l. 4s. to 6l. 6s. They sometimes sell them at three years old.

They plough with horses, but the gentlemen mostly with oxen; they have not the Mayo custom of walking backwards before them, nor do they harness them all abreast, but two and two. They will take a grazing farm, with three years rent, for stock. Land sells at 21 years purchase. The rents have fallen since 1772, but are now rising from the great price of wool, black cattle, and linen. Tythes are compounded by the proctors with gentlemen, but they screw up the poor people to the utmost. There are still many men who make it their business to hire large tracts of land in order to relet at advanced rents. Population increases greatly, yet many of them live very poorly upon potatoes and water, with some oatmeal. There are many that have no cows, only a house and a garden. The grass of a cow is 30s. This is not the case, however, at Moniva, there they have all cows, and are very rarely without milk. Rent of a cabbin and an acre 20s. building the cabbin for themselves; and 30s. if it is built for them. There were many emigrants from Galway to America, but only of the loose idle people. The general religion is roman catholic, but about Moniva chiefly protestant.

MR. ANDREW FRENCH, of Rathone Galway, who I met at Moniva, favoured me with the following particulars. At Galway there is a salmon fishery, which lets at 200l. a year; and in the bay of Galway they have a considerable herring fishery. There

are

are belonging to the town 200 to 250 boats, 40 or 50 of which are employed in the spring fishery, for cod, hake, mackarel, &c. These boats are from four to six tons, some nine tons. They cost building 20l. a boat, and the nets and tackle 15l. the nets are of hemp, tanned with bark. There are five or six men to a boat; they fish by shares, dividing into sixty: they have had this fishery time immemorial. The plenty of fish has decreased these 15 years. A middling night's *take* is 5000 fish; all they get is sold into the country, and the demand is so far from being answered, that many cargoes are brought in from the North. The fish sell from 1s. 4d. to 2s. 2d. a hundred; but the men are far from being industrious in the business: some weeks they do not go out twice.

On the coast of Conna Marra there is, from the 10th of april to the 10th of may, a fishery of sun-fish, which is done by the herring boats. It is not by shares, but the owners of the boats hire the men for the fishery. One fish is reckoned worth 5l. and if a boat takes three fish in the month, it is reckoned good luck. There are 40 or 50 boats employed on this. Along the whole bay there is a great quantity of kelp burnt; 3000 tons are annually exported from Galway: the present price is 40s. to 50s. a ton. The shore is let with the land against it, and is what the people pay their rent by. They use a great quantity of sea weed, drove in by storms for manuring land. In november they carry it on, the field being ready marked out in beds for potatoes, and leaving it on them, it rots against the planting season, and give them great crops. They also do this successfully with fern, cutting it in autumn, and laying it

on to the beds. The poor people near Galway are very industrious in buying the sullage of the streets of that town; they give 3d. for a horse load of two baskets, and carry it three miles.

ONE circumstance, relative to the progress of the linen manufacture in this country, the town of Galway can instance. Mr. Andrew French of that place, 16 years ago, imported the first cargo of flax seed of 300 hogsheds, and could only sell 100 of them, whereas now the annual importation rises from 1,500 to 2,300. Twenty years ago there were only 20 looms in Galway, now there are 180. They make coarse sheetings seven-eighths wide, at 9 $\frac{1}{2}$ d. to 11d. a yard; dowlas, 28 inches wide, at 7d. Ofsnaburgs at 7d. also. There are eight or nine bleach-greens in the county, but they bleach, generally speaking, only for the country consumption: the great bulk of the linens are sent green to Dublin. In the town and neighbourhood of Lochrea, there are 300 looms employed on linens that are called *Lochreas*, of 28 inches in width, which sell at 7d. a yard. All the flax worked in the county is, generally speaking, raised in it. The yarn spun is pound yarn, not done into hanks at all. Very many weavers are in the towns, without having any land more than a cabbage garden. The linen and yarn of the whole county has been calculated at 40,000l. a year.

SEPTEMBER 3d, left Moniva, and took the road to Woodlawn, the seat of Frederick Trench, Esq; passed many bogs of considerable size, perfectly improvable, and without the uncommon exertions I have just described.

WOOD-

WOODLAWN is a seat improved entirely in the modern English taste, and is as advantageous a copy of it as I have any where seen. The house stands on the brow of a rising ground, which looks over a lawn swelling into gentle inequalities; through these a small stream is converted into a large river, in a manner that does honour to the taste of the owner; it comes from behind a hill, at the foot of which is a pretty cottage hid by plantation, and flows into a large mass of wood in front of the house: the grounds, which form the banks of this water, are pleasing, and are prettily scattered with clumps and single trees, and surrounded by a margin of wood. The house is an excellent one, so well contrived, that the same disposition of apartments would be agreeable upon almost any scale of building.

MR. TRENCH's improvements of bog made me solicitous to view them; he was so obliging as to give me a full account, and no body could be more anxious to have me in general well informed. The first method of improving he took was with a bog of 12 acres, exceedingly wet, at the bottom of hills 16 feet deep to his knowledge, but he never yet was able to measure it to the bottom. A red bog, of a light fuzzy substance, like a bed of tow, which would not burn in turf; no other product than bog berries. Part of it so very wet, that he could not cut the drains at first wider than four feet and two spits deep; repeated this before the hard frost of 1765; had yet made no progress, it being almost as wet as ever: but took advantage of that frost, to cover the ice two inches thick with clayey gravel; when the thaw came, the gravel sunk, and pressed out the water.

The expence of this manuring was 3l. 10s. an acre. This gravelling had such an effect, that in the may following, about half of it bore horses with baskets, for carrying on dung, and where it would not bear them, it was carried on by men. The quantity six bushels to the square perch, and immediately planted with potatoes in the common trenching manner. The crop, per acre, 40 barrels, each 44 stone, at 8s. Levelled the potatoe trenches in digging for barley, in doing which attended minutely to not burying the manure; this digging cost 30s. an acre, and the barley covered with the spade, which they do very fast, and the expence included in the 30s. The crop of barley 10 barrels an acre, at 8s. After this crop, took no more trouble with it; very rich and luxuriant grass sprang up directly, and would let readily in meadow, at 25s. but part of it in a few years would let at 2l. Two acres were not perfectly reclaimed; it was of the moory nature; dug and burned it, and put in turnips, the crop very good: then dung it for barley, the produce 14 barrels an acre, and the meadow good ever since. I was over it, and found it a perfect improvement; the hay was fine, the herbage good, and carried the complete appearance of a meadow, except in the drains, where the heath still appears.

NUMBER 2.

TWENTY-FIVE acres of spongy fungous bog, from 8 to 16 feet deep, had been cut into very great turf-holes, which holes, though they held water, and had drowned many a cow, yet had so far drained the bog as to make the less draining necessary; effected it,

and then levelled the holes; but as they sunk much levelled them a second time. Upon this, took the advantage of a frost to manure it with clay and gravel, at 2l. 10s. an acre; then dunged a part with the quantity mentioned already, and the rest of it manured with the ashes of moor, which burned yellow. Upon this manuring planted potatoes; the crop 10l. an acre, pretty equal, being as good after the ashes as after the dung. After the potatoes, levelled the trenches, and dug it and sowed wheat; the crop 6 barrels an acre; barley 10 barrels; oats 9 barrels; then left it for meadow, the value 2l. an acre.

NUMBER 3.

ANOTHER piece of bog of the same sort, light and spongy; drained, and then manured with clayey lime-stone gravel, mixed with ditch earth. In the summer planted potatoes; the crop 15 barrels an acre; then dug for oats, 6 barrels an acre, meadow ever since, and perfectly good, would let at 1l. 10s. an acre.

NUMBER 4.

ANOTHER bog of the same sort well drained, manured with lime, 80 barrels an acre, at 4d. a barrel; planted with potatoes; the crop not worth digging; dug it for oats, the crop not worth reaping: then left it in grass, which was indifferent, not worth more than 5s. an acre.

NUMBER 5.

ANOTHER experiment was on the same sort of bog, which, when well drained, was manured in spring with

with lime-stone gravel, and then with marle instead of dung, and planted with potatoes; the crop 4l. an acre; then dug it for oats, the crop six barrels; and then left to grafs, worth 11. 5s. an acre.

NUMBER 6.

ANOTHER experiment, the same as the preceding, except lime laid instead of marle: the effect in every respect on a par with the marle. Neither of them yielded half the produce which dung or ashes would have done.

NUMBER 7.

ANOTHER bog of the same sort was, after draining, manured with lime-stone gravel, and then with the scowering of ditches and earth, to the amount of three inches and a half deep on the surface: expence in all 4l. an acre. Then left, and nothing more done to it; very good grafs came the next season, worth for grazing 18s. an acre.

NUMBER 8.

ANOTHER spongy bog drained, and then well gravelled, at 2l. 10s. Left so for three years; scarce any grafs came, the heath still remaining: planted potatoes on it without any dung or other additional manure; the crop 4l. an acre; then dug it smooth, and nothing sown in it, but came immediately to very good pasture, worth 15s. an acre.

MR. FRENCH recommends, from his experience, the following mode of improving bogs: first, the great object is draining; main drains should be made on

on each side the bog, near the firm land; these cuts should be six feet deep and eight wide, and will cost 1s. a perch. Then cross drains from main drain to main drain, at from 5 to 10 perch from one to the other, at three feet deep and four wide, at the expence of 3d. a perch. Here is the first year's work. The next year go into all the drains and sink them, which will cost 1d. a perch: if a frost comes, carry on the lime-stone gravel, let it be a coat of two inches thick; if three it will be better; two inches will cost 3l. if not carried farther than half a quarter of a mile; if carried a quarter of a mile, it will cost 4l. 10s. if half a mile, 6l. 15s. if a mile 9l. Prefers the clayey lime-stone gravel to every other manure; if that is not to be had, clay; and if not clay, other gravel; if no gravel or clay, then lime; if nothing else, then the light marle under bogs. Upon this manuring spread a compost, one-third dung, one-third ditch earth, and one-third lime-stone gravel, nine bushels to the square perch; if dung only, six; and upon that plant potatoes in the common manner. The crop will, on an average, be 30 barrels, at 8s. or 12l. an acre. The poor people will readily give three or four guineas an acre for liberty to plant them. Upon this crop of potatoes spread two bushels of dung more to the perch, and plant a second crop of potatoes, making the furrows where the ridges were, and make the ridges of both crops nine feet wide, and the trenches four. This crop of potatoes will be full as good as the first. Then dig it, levelling the trenches, scooping the sides, to fill up with, and the manured part on the surface; sow barley; the crop will be 12 barrels on an average; with this barley sow grass seeds, and it will immediately be worth for meadow 1l. 10s. Let this

this go on for seven years ; then give it a light gravel-
 velling, at 1l. 10s. an acre ; dung it four bushels per
 perch ; plant potatoes, 12l. an acre ; then barley 14
 barrels ; and then meadow worth 40s. In this cir-
 cumstance of letting meadow it should be remarked,
 that they will hire it at great prices, such as minuted,
 but the same lands would not let at more than 18s.
 upon a lease ; for in one case you stand the chance of
 keeping the land to its present heart, and in the other
 the tenant has that chance,

THERE is a circumstance which should be menti-
 oned, the skin of the turf should not be broken for
 some years by heavy cattle ; for wherever they make
 a hole, the rushes grow at once, which cannot be
 easily destroyed. Mr. French does not think it at all
 necessary to keep an improved bog under grass, as he
 has found by experience, that the more they are cul-
 tivated the better they grow. In the winter he feeds
 his reclaimed bogs with sheep ; they have a perpetual
 spring of grass all through that season, and are of a
 nature so contrary to that of rotting sheep, that they
 will recover those which are threatened with that
 distemper.

HE has planted several large clumps in his re-
 claimed bogs, and has found that almost every kind of
 tree thrives well in them : I thought the spruce fir
 seemed to get up the quickest, but all of them ap-
 peared perfectly healthy.

Calculation

Calculation of improving a square mile upon the preceding plan; supposing 9 miles of main drains, and 64 of croses ditto.

	L.	s.	d.
2881 perches of main drains, at 2s.	288	0	0
20,480 perches of croses drains, at 6d.	511	19	9
Two miles of road, 10 feet wide, at 75l.	150	0	0
Gravelling, on an average of the distance, 6l. per acre	3840	0	0
Labour on the dunging, 40s. per acre	1280	0	0
	<hr/>		
	6069	19	9
Deduct rent of the land for potatoes, at 3l.	1920	0	0
	<hr/>		
	4149	19	9
Manuring second crop of potatoes, labour 20s. an acre	640	0	0
	<hr/>		
	4789	19	9
Deduct rent for potatoes, as before	1920	0	0
	<hr/>		
	2869	19	9
Levelling and digging for the barley, 30s. an acre	960	0	0
A barrel an acre of barley feed, 8s. an acre	256	0	0
Reaping, harvesting, and threshing, 20s. an acre	640	0	0
	<hr/>		
	4725	19	9
Deduct the value of the crop, 9 barrels, at 8s.—3l. 12s. an acre	2304	0	0
	<hr/>		
Remain, total expences of the improvment	2421	19	9
	<hr/>		
Rent			

Rent of 640 acres, at 16s. an acre, 512l. which income is 21h per cent for the expenditure of 2421l.

SEVERAL great deductions are made in this account, because the bog is supposed to be a very large one.

Mr. TRENCH buys in year-old bullocks and some spayed heifers, at 1l. 15s. each; sells them out at three-years old, good stores, but not fat, at 6l. 3s. on an average. He has 920 sheep, consisting of 300 ewes, 180 lambs, 270 yearlings and two-year olds, and 180 fat sheep. The annual slaughter and sale is 180 fat wethers, at 1l. 3s. — 60 culled ewes, at 15s. In order to save dung for his bog improvement, he has cut a large drain from his yards and stables through the garden, paved it, and keeps it filled with bog earth, and all the urine of the cattle, &c. running into it, makes an excellent compost for the gardener.

AVERAGE rent of the improved part of the county of Galway, 14s. an acre. About Woodlawn 14s. to 18s. The soil all lime-stone gravel, or lime-stone fine sound land. The size of farms varies; there are many small ones of from 30 to 100 acres, part grazing and part tillage; also many stock ones, up to 1000 and 1500 acres; and these graziers re-let to the cabbins part of it at a very high rent, by whom are carried on most of the tillage of the country. Mr. Trench remarks, that if good land is let to the poor people, they are sure to destroy it; but give them heath, or what is bad, and they will make it good.

1. Potatoes on the grass. 2. Summer fallow.
3. Wheat. 4. Oats. 5. Oats. 6. Lay out.—No
seeds.

1. Potatoes. 2. Barley. 3. Wheat. 4. Oats.
5. Oats. 6. Oats.

1. Potatoes on grass. 2. Gravel and fallow.
3. Wheat. 4. Barley. 5. Oats. 6. Leave it for
grass.

1. Potatoes. 2. Flax. 3. Wheat. 4. Oats.
5. Oats. 6. Lay out.

AVERAGE produce of potatoes, 30 barrels, at 4s
stone, at 8s. or 12l. Of wheat, 8 barrels, at 20
stone. Of barley, 12 barrels, at 16 stone. Of oats,
12 barrels, at 14 stone.

EVERY poor man sows some flax, but still they do
not raise enough for their spinning, for that is uni-
versal. Lime-stone gravel is the general manure.
No lime, though it is every where to be had; the
price to burn is 4d. a barrel of 3 bushels roach.
Every cabin has eight or nine acres, and two or
or three cows, or two cows and one horse; and about
half have horses, two or three pigs, and many poul-
try; half a rood of flax, one acre potatoes, or half
at a medium. They live on potatoes, oats, or bar-
ley-bread, or butter; like oats better. Their cir-
cumstances are much improved in 20 years. They
pay rent 12s. to 14s. an acre.

SEPTEMBER 4th, to Kiltartan, the seat of Robert
Gregory, Esq. who is engaged in pursuits which, if
well

well imitated, will improve the face of the country not a little. He has built a large house with numerous offices, and taken 5 or 600 acres of land into his own hands, which I found him improving with great spirit. Walling was his first object, of which he has executed many miles in the most perfect manner: his dry ones, 6 feet high, 3 feet and a half thick at bottom, and 20 inches at top, cost 2s. 6d. the perch, running measure. Piers in mortar, with a gate and irons complete, 1l. 14s. Walls in mortar, five feet high, cost 6s. a perch. He has fixed two English bailiffs on his farm, one for accounts and overlooking his walling and other business; and another from Norfolk, for introducing the turnip husbandry, of which he has 12 acres this year: what particularly pleased me, I saw some Irishmen hoeing them; the Norfolk man had taught them; and I was convinced in a moment, that these people would by practice soon attain a sufficient degree of perfection in it. The soil around is all a dry sound good limestone land, and lets from 10s. to 12s. an acre, some higher. It is in general applied to sheep. Mr. Gregory has a very noble nursery, from which he is making plantations, which will soon be a great ornament to the country.

SEPTEMBER 5th, to Drummoland, the seat of Sir Lucius O'Brien, in the county of Clare, a gentleman who had been repeatedly assiduous to procure me every sort of information. I should remark, as I have now left Galway, that that county, from entering it in the road to Tuam till leaving it to-day, has been, upon the whole, inferior to most of the parts I have travelled in Ireland in point of beauty: there are not mountains of a magnitude to make the view striking.

striking. It is perfectly free from woods, and even trees, except about gentlemen's houses, nor has it a variety in its face. I do not, however, speak without exception; I passed some tracts which are chearful. Drummoland has a pleasing variety of grounds about the house; it stands on a hill gently rising from a lake of 24 acres, in the middle of a noble wood of oak, ash, poplar, &c. three beautiful hills rise above it, over which the plantations spread in a varied manner; and these hills command very fine views of the great rivers Fergus and Shannon at their junction, being each of them a league wide. For the following particulars I am indebted to Sir Lucius O'Brien's very friendly attention.

AVERAGE rent of the county of Clare, 5s. The bad tracts of land are the east mountains, part of the barony of Burrin, and the great peninsula, which forms the north shore of the Shannon. Great tracts are let at nothing at all, but there are 20,000 acres from Paradise-hill, along the Fergus and Shannon to Limerick, which let at 20s. an acre. These lands are called the *Corcaffes*. The soil of them is either a rich black loam, or a deep rich blue clay; and all the higher lands are lime-stone, or lime-stone gravel. The mountains are generally grit-stone. The size of farms is various; Capt. Tim. Macnamara farms 7000 acres, but part in other counties. Mr. Singleton, 4000 acres. A farm of 300l. a year is a very small one; 500l. a year middling; this is speaking of stock-farms. The tillage of the country is carried on by little farmers, from 20l. to 100l. a year; but most of it by the poor labourers, who are generally under-tenants, not holding of the landlords. The courses of crops are,

1. Potatoes. 2. Bere. 3. Wheat. 4. Oats.
5. Oats. 6. Oats. 7. Lay it out to grass.

1. Beans. 2. Bere. 3. Barley. 4. Wheat. 5. Oats.
6. Oats. 7. Oats. 8. Lay it out, or beans again.

Of wheat they sow 16 to 15 stone an acre; the crop, in the corcals grounds, 8 barrels; in the other lands 5 or 6: 20 stone to the barrel. Potatoes they measure by the barrel of 48 stone; they plant 6 to the acre, and the average produce 50 barrels. They never plant them on the corcals lands; for they will not grow there. Mr. Fitzgerald, of Shepperton, has had 100 barrels per acre; the favourite sorts are the apple, the Castania, and the Buck, being a species of the Howard. They fat pigs on them; but what much amazed me, was fattening hogs on grass, which they do very generally, and make them as fat as a bullock, but put them up to beans for three weeks to harden the fat. Of barley they sow 14 stone an acre, and get six barrels, at 32 stone each. Bere, two rowed barley, called *English* here, and four rowed, called *Dutch*, and of these the bere yields best. Mr. Singleton has had 40 barrels of bere per acre, each 16 stone on the corcals land. Of oats they sow 21 stone to the acre, and get 12 barrels, on an average 14 stone each; and on the corcals land 16. Of beans they sow 35 stone to the acre, sow them on the green sod soon after christmas, and plough them in; never hand-hoe or weed them: the average crop 20 barrels, at 20 stone; 30 the greatest; they are used for home consumption in dear years, and for exportation in cheap. The poor people make bread of them, and eat them boiled, and they prefer a bushel of them to a bushel of wheat; but they will not eat

them, except in a scarcity. No pease sown, but rape in considerable quantities in mountain grounds, or boggy, both of which are burnt for it. They plough the furrow very shallow, and burn it: they never feed it. The crop of seed 8 barrels, at 16 stone, at from 7s. 6d. to 18s. a barrel, generally from 14s. to 17s. It is pressed into oil at the mills of six-mile bridge and Scariff, near Killaloe; but the greatest part is bought up by the merchants of Limerick for exportation to Holland, and last year some part of it has been sent to Great Britain, in consequence of the act which passed last sessions. The rape cakes are all exported to England for manure: the price of them 45s. to 42s. per ton. The rape and bean-straw are burnt to ashes for the soap-boilers; and Mr. Singleton has a kiln contrived on purpose for burning lime with it, collecting the ashes at the same time that the lime is burnt. No clover is sown, except by Sir Lucius O'Brien. Flax is sown in small quantities by the poor people for their own consumption; and some yarn sold, but not much from the whole county. Spinning is by no means general; not half the women spin. Some linens, handkerchiefs, and Clare dowlas, for exportation in small quantities, and other sorts, enough for home consumption. Wool is spun for cloathing the people, into worsted yarn for serges, and into yarn for stockings. Great quantities of frizes are sold out of the county.

Much heath waste land, many hundreds of acres every year are brought in by paring and burning for rape, but use no manure for it; after that wheat, and get good crops, and then two, three, or four

crops of oats, good ones; then left for grass, and comes tolerable herbage, worth 5s. an acre.

THE principal grazing system consists in a union of both of rearing and fattening; the rearing farms generally at a considerable distance from the rich lands on the Fergus and Shannon. The most profitable management of grazing, is to buy in year-olds, but it can only be done, by having a variety of land. It is found much more beneficial than buying in bullocks in autumn, and cows in may, as the Meath graziers do.

THE average price of the year-olds, is from 2l. 2s. to 2l. 10s. and the price sold at four and a half year-olds, weighing $4\frac{1}{2}$ cwt. $4\frac{3}{4}$, to $5\frac{1}{4}$ cwt. is on an average at 8l. For cows bought in in may, 3l. 3s. to 3l. 12s. and sell at 5l. 10s. An acre of the corcals land will fatten one of these bullocks, but then it must not be winter-fed at all. Sheep, on an average, shear three to a stone of 16 lb. and sell at 1s. per lb. Mr. Macnamara sold this year 55 bags, besides his lambs wool; the weight is from six hundred, to seven and a half, fifty stone, and this year's price 17s. 6d. a stone. Upon the lime-stone sheep-walks of this county, they keep from one and a half to five; on an average, three. The loss on stock-sheep, bullocks, &c. will not amount to more than one per cent. on the value. For hiring and stocking a grazing farm, three rents are reckoned to do. Those bullocks that are to be fattened the summer following, they give hay most part of the winter, for four or five months, as much as they will eat, which will be half an acre of good meadow.

THERE

THERE are 4000 bullocks fattened annually in the county of Clare; bought in at 6l. and sold out at 10l. and 3000 cows, bought in at 3l. and sold fat at 5l. also 6000 fat wethers, sold out of the county annually at 20s. each.

THIS country is famous for cyder orchards, the cakagee especially, which is incomparably fine. An acre of trees yields from four to ten hogsheads per annum, average six, and what is very uncommon in the cyder counties of England, yield a crop every year. I never beheld trees so loaden with apples as in Sir Lucius O'Brien's orchard; it amazed me that they did not break under the immense load which bowed down the branches. He expected a hoghead a tree from several.

LAND sells at twenty years purchase. Rents fell in the rearing lands 5s. or 6s. in the pound, but rich lands fell very little. Tythes are compounded by a composition made every year by the piece. Fat bullocks nothing. Sheep, 20s. per hundred. Wheat, 5s. Barley, 3s. Oats, 2s. Potatoes, 10s. Middle men, not common, but much land re-let, arising from the long tenures which are given of three lives, &c. The poor live upon potatoes ten months of the year; but if a mild winter, and a good crop, all the year on them. They keep cows very generally, but not so many as in the list of Sir Lucius's tenants. Labour is usually paid for with land. Working-days of roman catholics may be reckoned 250 in a year, which are paid for with as much land as amounts to about six pounds, and the good and bad master is distinguished by this land being reckoned at an high or a low rent. The state of the poor, on comparison

with what they were twenty years ago, is that they are much increased in numbers, and better clad than they were, and more regularly fed, in being freed from those scarcities which were felt before the laws for the increase of tillage. Relative to religion, there was a return to the committee of religion, in the house of Commons, in 1765, when the return of Clare was as follows, in five divisions:

No. 1.	896 protestants.	16831 catholics.
2.	1089	12156
3.	291	2694
4.	99	786
5.	101	4677
	<hr/> 2476	<hr/> 37144
		<hr/> 2476
	Total	<hr/> 3962

16 to 1, and 404 over.

LUCERNE, Sir Lucius cultivated for some years, and found while it was attended to, and kept clean, that it was of great use for horses, but his absence and neglect destroyed it. Relative to smuggling wool from Clare, he gave me several strong reasons for believing that there had not been any for some years; that county is well situated for it, and some ships smuggled brandy and tobacco, and could carry it away with great ease, yet not one goes. Sir Lucius was executor to a man who made a fortune by it twenty-five years ago, but he would never smuggle when above 10s. a stone; I had the same account in Galway. The cause of the high price of wool, is the admission of woollen yarn in all the ports of England,

England, and the increased demand in the Manchester fabric for that yarn, which demand would have operated in England as in Ireland, had the cheapness of spinning been equal. Another cause, the increase of population, and the people being better clad. Sending a pound of wool to France, smugglers compute to be sixpence, which is fifty per cent. on the present prime cost. Thus the French could get wool much cheaper from England, where the prime cost is lower. There is none from Cork, for being a manufacturing town, the people would not allow it. A duty of 4d. per stone of 18 lb. on woollen and worsted yarn exported, marks the quantity which Ireland grows beyond its own consumption. Raw wool, two thousand to 10,000 stone, the rest yarn, which is nearly doubled in value by the manufacture. The quantity of broad-cloth and serges, that is, old and new drapery, imported from England, equals the export of woollen yarn. It is remarkable that upon the corcafs lands in this country, there are several tools in use, which are called *Dutch*, a *Dutch spade*, a *Dutch plough*, &c.

PARTICULARS of some of Sir Lucius O'Brien's labourers.

Average of 43 souls per cabin	6
Cows	3
Horses	1½
Sheep	9½
Acres potatoes	1
— corn	2½

A a 4 Sir

Sir Lucius O'Brien introduced me to two of the most considerable graziers in the county, Mr. Singleton, and Mr. Fitzgerald, and rode through a part of their farms. Mr. Singleton's corcals meadows were one continued bed of rushes, till he destroyed them by a method which alone proved effectual, which is digging up the rush, and turning it topsyturvy into the hole again, this he finds effectually destroys them, and the expence is not so great as might be imagined. This gentleman has more tillage-land than common upon grazing farms; he shewed me a *haggard*, well filled with wheat stacks; seventeen acres of that grain yielded him 196 barrels. Mr. Fitzgerald is a very attentive farmer, and in several particulars, conducts his business upon principles different from those which are common in Ireland. He has built excellent farming-offices; particularly a barn, exceedingly well contrived; the corn may be thrown at once from the part of the barn where it is stowed on to two threshing-floors, the one over another, and from the stacks through a window into the barn. His hay is also thrown in the same manner, down into the cow-house, and his potatoes into a vault. These conveniencies, which are a great saving of labour, are gained by the buildings being raised on the side of a steep hill, cut away for the purpose. His cows he keeps in the house all winter, by which means they are better wintered, and he raises a great quantity of manure. The chaff of his corn crops he saves carefully, which is directly contrary to the farmer's practice; and what is much more, cuts much hay and straw into chaff, with an engine, which he finds to answer perfectly well; the man works it with one hand, and supplies it with the other, being fixed against the wall.

SEPTEM-

SEPTEMBER the 8th, left Drummoland. Sir Lucius rode with me through Clonmelly, to the hill above Bunratty Castle, for a view of the Shannon. Clonmelly is a division of Drumline parish, 900 acres of Corca's land in one lot, which is cheap, at 30s. an acre. I went into some of the pastures, which were stocked with very fine bullocks, at the rate of one to every acre. In this neighbourhood, Mr. Hickman has a close of 20 acres, which, when in his own hands, fattened him 2 cows per acre, and in winter fed him 100 wethers, to the improvement of 6s. each. The profit by the cows was 4l. and by the sheep 1l. 10s. per acre: in all 5l. 5s. I had this fact from his own mouth. The richness of these corca's, which are flat lands on the river side, that have been gained at different times from the salt-water, is very great. When in tillage, they sometimes yield extraordinary crops; 50 stat barrels an acre of bere have been known, sixteen of barley, and from 20 to 24 of oats are common crops. From Clonmelly Hill, the prospect is very noble. There is a view of the Shannon from Limerick to Foynes Island, which is 30 miles, with all its bays, beads, islands, and fertile shores. It is from one to three miles broad, a most noble river, deserving regal navies for its ornament, or what are better, fleets of merchantmen, the chearful signs of far extended commerce, instead of a few miserable fishing-boats, the only canvasses that swelled upon the scene: but the want of commerce in her ports is the misfortune, not the fault of Ireland. Thanks for the deficiency to that illiberal spirit of trading jealousy, which has at times actuated and disgraced so many nations. The prospect has a noble outline in the bold mountains

tains of Tipperary, Cork, Limerick, and Kerry. The whole view magnificent.

At the foot of this hill is the castle of Bunratty, a very large edifice, the seat of the O'Briens, princes of Thomond; it stands on the bank of a river, which falls into the Shannon near it. About this castle, and that of Rosmanagher, the land is the best in the county of Clare; it is worth 11. 13s. an acre, and fats a bullock per acre in summer, besides winter feed.

To LIMERICK, through a cheerful country, on the banks of the river, in a vale surrounded by distant mountains. That city is very finely situated, partly on an island formed by the Shannon. The new part, called Newtown Pery, from Mr. Pery, the speaker, who owns a considerable part of the city, and represents it in parliament, is well built. The houses are new ones, of brick, large and in right lines. There is a communication with the rest of the town by a handsome bridge of three large arches, erected at Mr. Pery's expence. Here are docks, quays, and a custom-house, a good building, which faces the river, and on the opposite banks a large quadrangular one, the house of industry. This part of Limerick is very cheerful and agreeable, and carries all the marks of a flourishing place.

The exports of this port are beef, pork, butter, hides, and rape-seed. The imports are rum, sugar, timber, tobacco, wines, coals, bark, salt, &c. The customs and excise, about 16 years ago, amounted to 16,000l. at present 32,000l. and rather more four or five years ago.

Whole

Whole revenue 1751 £16,000

1775 31,000

Revenue of the Port of Limerick, Year ending

March 25 1759 £20,494

1760 29,197

1761 20,727

1762 20,650

1763 20,525

1764 32,635

1765 31,099

Com. Jour. vol. 14. p. 71.

*Account of Duties paid on Goods imported and exported
in Limerick.*

Years.	Imports.			Exports.		
	£.	s.	d.	£.	s.	d.
1764	19,869	15	9	2195	6	7
1765	21,332	4	8	1964	5	2
1766	16,729	8	2	1815	11	8
1767	16,316	10	0	2365	4	4
1768	16,571	12	8	2229	17	2
1769	20,237	12	7	1855	0	8
1770	22,138	0	4	1941	3	8
1771	20,213	12	6	2455	2	2
1772	22,003	2	0	3046	11	10
1773	20,606	15	7	2282	1	7
1774	17,317	0	9	2150	13	9
1775	16,979	10	6	2647	5	9

Salted,

Salted, last year, 43,700 pigs; average $1\frac{1}{2}$ cwt. The number of bullocks killed here in a year amounts to 13,000, increased pretty considerably in twenty years. They have been salting pigs all summer. Pork now 29s. 3d. per cwt. was only 12s. seven years ago. The value of bullocks hides are on an average 35s. and those of cows 24s. per cwt. Butter exported in casks, from two to three cwt. each, now 44s. a cwt. 6 years ago only 25s. The shipping belonging to the town, 1 of 120 tons.

1	-	150
3	-	150 to 250
1	-	140
1	-	96
1	-	50

but not increased. A good deal of rape seed shipped off for Holland, and one hundred tons of rape cakes to Wells and Lynn in Norfolk, at 40s. a ton. Till this last year at 25s. a ton. Many thousand loads of dung thrown into the Shannon, both in the town and many places along the river. Within five or six years they have taken some away, but not much. Town parks let at 4l. 4s. to 5l. for 10 miles every way the rent is 25s. to 30s. Much flour goes to Dublin from this county and Tipperary on the land-carriage bounty. There is a great increase of tillage: thrice the corn grown that there was formerly: there has been much pasturage broken up on this account; some bullock land, and some sheep land. Great quantities of butter made within a few miles of Limerick. Scarce any spinning here, or in the neighbourhood, either of wool or flax. The poor live upon potatoes and milk, generally speaking, with some

some oatmeal. They do not all keep cows; those who do not, pay rd. for three quarts of skim milk. The rent of their cabbins and one-fourth of an acre 15s. to 20s. build them themselves. They are in a better situation in most respects than twenty years ago. Pigs are much increased, chiefly or entirely bred by the cottars, and the high price has been of prodigious consequence to them. They are much better clad than they were. Date their increase of this from the open cattle trade to England. Population has much increased within twenty years, and the city also, but was more populous six years ago than at present. Emigrations were known from hence; two ships went commonly till the war. Between 1740 and 1750, there were only four carriages in and about Limerick, the bishop's, the dean's, one other clergyman's, and one neighbouring gentleman's. Four years ago there were above seventy coaches and post-chaises in Limerick, and one mile round it. In Limerick district, now 183 four-wheeled carriages, and 115 two-wheeled ditto.

Price of Provisions.

Wheat, 1s. 1d. a stone
 Barley and oats, 5d $\frac{1}{2}$. to 6d.
 Scotch coals, 18s. Whitehaven, 20s.
 A boat load of turf, 20 tons, 45s.
 Salmon, three halfpence
 Trout, 2d. very fine, per lb.
 Eels, 2d. a pound
 Rabbits, 8d. a couple
 Wild ducks, 20d. to 2s. a couple
 Teal, 10d. a couple
 Plover, 6d. a couple
 Widgeon, 10d. ditto
 Hares,

Hares, 1s. each, commonly sold all the year round
 Woodcocks, 20d. to 2s. 2d. a brace
 Oysters, 4d. to 1s. a 100
 Lobsters, 1s. to 1s. 6d. if good.

Land sells at twenty years purchase. Rents were at the highest in 1765, fell since, but in four years have fallen 8s. to 10s. an acre about Limerick. They are at a stand at present, owing to the high price of provisions from pasture. The number of people in Limerick are computed at 32,000, it is exceedingly populous for the size; the chief street quite crowded; many sedan chairs in town, and some hackney chaises. Assemblies the year round, in a new assembly-house, built for the purpose; and plays and concerts common.

UPON the whole, Limerick must be a very gay place, but when the usual number of troops are in town, much more so. To shew the general expences of living, I was told of a person's keeping a carriage, four horses, three men, three maids, a good table, a wife, three children, and a nurse, and all for 500l. a year:

	£.	s.	d.		£.	s.	d.
A footman	-	-	4 4 0	to	6 6 0		
A professed woman cook					6 6 0		
A house-maid	-	-			3 0 0		
A kitchen-maid	-	-			2 0 0		
A butler	-	-	10 0 0	to	12 0 0		

A barrel of beef or pork, 200lb. weight. Vessels of 400 tons. can come up with spring-tides, which rise 14 feet.

SEPTEMBER

SEPTEMBER 9th, to Castle Oliver; various country, not so rich to appearance as the corcasses, being fed bare: much hilly sheep-walk, and for a considerable way, a full third of it potatoes and corn: no sign of depopulation. Just before I got to the hills, a field of ragwort (*senecio jacobina*) buried the cows. The first view of Castle Oliver interesting. After rising a mountain so high that no one could think of any house, you come in view of a vale, quite filled with fine woods, fields margined with trees, and hedge plantations climbing up the mountains. Having engaged myself to Mr. Oliver, to return from Killarney by his house, as he was confined to Limerick by the affizes, I shall omit saying any thing of it at present.

SEPTEMBER 10th, reached Anns Grove, the seat of Richard Aldworth, Esq; to whom I am obliged for the following particulars. Farms about Anns Grove, in the parish of Castle Town Roche, rise from 50 acres to 200, a few smaller. It abounds exceedingly with land jobbers, who have hired large tracts, and re-let them to tenants, and those to under ones, but gentlemen are getting out of this system now. No graziers here; the rents are made by tillage and sheep, and a few dairies; the soil is all lime-stone; much fine hazel loam, from 4 to 18 inches deep. A hill runs through this country, which is wet woodcock clay. It lets in general from 7s. to 22s. plantation acre, average 15s. The barony of Orrery in this county (Corke) is as rich as Limerick; lets from 25s. to 35s. an acre. The next is Fermoy 13s. Duhal-low has much mountain and unimproved land; vast tracts of it heath, but rears at present great numbers of young cattle, and many dairies, average rent 7s.

Con-

Condons and Clangibon 15s. Imokilly, a very fine corn country. Barrymore, rough, 7s. Barrets, mountains with bog, 4s. Mufherry, rough and uncultivated, 4s. Kinalea yields more corn than any of them; lets at 14s. the English acre. The baronies of Kerrycurihy and Courcy's upon the coast are all high let, from situation, 10s. the English acre. In Carbery, there are great quantities of wild country, and much uncultivated; provisions are extravagantly cheap, from want of communications. The whole county, upon an average, 7s. The course of crops about Annsgrove:

1. Potatoes. 2. Wheat. 3. Oats. 4. Oats.
5. Oats. 6. Oats. 7. Leave it for three years:

1. Potatoes. 2. Bere. 3. Oats. 4. Oats.
5. Oats. 6. Oats. 7. Leave it for three or four years.

FLAX sown in patches upon lay, and sometimes after potatoes. That root they plant in a most slovenly manner, leaving the small ones in the ground the first crop, in order to be seed for the second, by which means they are not sliced: sometimes a sharp frost catches them, and destroys all these roots. They plant many on grass without dung, on the rich land, and pay 25s. to 50s. an acre for liberty to do it. Of wheat they sow 20 stone per acre, and get on an average 7 barrels. They seldom sow it till february; they think the first dark nights in that month the best seed time in the year. But it is in fact owing to their taking their potatoes up so late, which they do not begin till near christmas. Some, however, are earlier, and get their wheat in in november and december.

ber. They sow, of oats, a kilderkin, or 4 bushels of 32 gallons. Neither pease, beans, nor rape in the country, but turnips and clover are creeping in among gentlemen. Flax is sown by every body for their own use, which they spin, and get woven into linen for themselves, and what they have to spare, sell in yarn. But there are very few of these weavers.

LIME is the great manure; they lay 100 common barrels to the acre, lasts seven or eight good crops, and leaves the ground the better for it: but their principle is to exhaust as fast as possible in consequence of liming. It costs them 8d. a barrel roach. Burn with culm from the coal-pits in the barony of Duhallo. This coal is only used for drying malt, smiths forges, &c. but not for common fuel. They have also a very rich manure, which is rotten lime-stone, as they call it. It is a rock, and rises very hard, like a lime-stone quarry, but when exposed to the air, falls into sand; it has a strong fermentation with acids, and gives great crops: they do not, however, carry it above a mile and half. Paring and burning they are very fond of for potatoes, and sometimes for bere, but the landlords prevent the practice. They get very great crops by it, and do it to chuse on waste lands; pare with an instrument they call a *graffane*, and the husbandry they call *graffaning* and burning. It is a very strong hoe with which they cut up the turf, rolling it up with their foot as they do it, and leaving it to dry in order to burn. They do it in march or april for their potatoe planting; and though it makes them very late, yet the crops never fail. Soot is thrown away; no malt dust, as they do not screen their malt. The fences of common farmers are making banks, and sowing furze

VOL. I. B b seed.

seed. Grass lands are applied to feeding sheep and cows. Their sheep system is that of breeding. They keep their lambs till they are two-year old wethers, and then sell them to those who fatten near the coast. These they sell at 11s. to 18s. each; and they cull some ewes every year, which the butchers buy at 14s. or 15s. They shear on an average 4 lb. of wool, which sells at 13s. to 19s. 6d. a stone, at which amazing price some was sold this year. The cottars have all sheep, which they milk for their families. The poor people reckon their cattle by *collops*, that is, proportions. The heaviest collop is six sheep, the next is a horse, the next two heifers, and lastly the cow. Flocks rise to 500 sheep; no folding. Dairies are considerable. They rise from 20 to 50 cows, are employed in making butter only; in some parts of the county they make very good cheese. An acre and a quarter maintains a cow in summer and winter grass and hay. The farmer generally lets them out to dairymen, at 2l. a cow, and a guinea for horn money; the 40s. is for the butter, and the guinea for the other produce, sour milk, pigs, and calf. But sometimes the rent is in butter a hundred weight per cow delivered in Corke, and the guinea is in cash. The produce is not much more than this cwt. of butter; for the dairyman's profit lies principally in having the grass of a cow, an acre of ground, and a cabin and garden, and they are generally very poor. They rear many pigs on account of the dairies, about a pig to every cow, and a calf to every two cows, which they feed on sour milk, giving them none new. They are attentive to have their cows calve in May. The tillage of the farmers is all done by horses; that of the gentlemen by oxen. Four horses and three men to every plough, one to drive, one

one to hold, and another with a pole, bearing on the beam to keep it in the ground; but they do an acre a day, by means of leaving a great space untouched in the middle of each land, where they begin by lapping the sods to meet. To 100 acres of tillage they keep about six horses; they make up their teams by borrowing of one another. Hire of a car, horse, and driver, 1s. 6d. a day. Price of carriage $\frac{1}{2}$ d. per cwt. a mile. In hiring farms, they will manage to take 100 acres without a hundred pence. They will do it without teams or cattle, or any thing; by re-letting the land for potatoes, grass for cows, &c. and if a fellow gets 5l. by a 100 acres, he is very well satisfied. Land sells at 20 years purchase. Rents, at present, at a stand; rather upon the rise, owing to the price of butter; they fell 3s. 6d. in the pound in 1772 and 3. Tythes are compounded. Wheat pays 8s. the English acre: some 6s. Barley and Bere 6s. Potatoes 6s. Mowing ground 2s. Sheep 3d. Lambs 2d. Cows 2d. Leases are generally 31 years, three lives, or for ever.

THE poor people in general occupy from 10 to 15 acres; but the most common way is hiring in partnership in rundale; and they have changedale also. Most of them have only a cabin and a cabbage garden, the size is usually enough for 100 plants; and their rent for it 20s. in this case they pay their neighbour for the grass of their cow; but I was sorry to find that some of them have no cows. They live the year through upon potatoes, and for half the year have nothing but water with them. They have all a pig, and some of them several, but kill one for themselves at christmas. Their circumstances are very generally better than twenty years ago, especially

in cloathing, but in food no great difference. Spinning is the general business of the women: they spin infinitely more wool than flax. All the poor keep a collop of sheep; as soon as the lamb is fit to kill, they sell it, except enough to keep up the stock, in order to have the milk. In the little towns of Donegall, Mitchelstown, Mallow, Kilworth, Kanturk, and Newmarket, are clothiers, who buy up the wool, employ combers in their houses, who make considerable wages, and when combed, they have a day fixed for the poor to come and take it, in order to spin it into worsted, and pay them by the ball, by which they earn 1^{d.} to 2^{d.} a day. The clothier exports this worsted from Corke to Bristol and Norwich. Of late they have worked a good deal of it into serges, which are sent to Dublin by land-carriage, and from thence to the North, from whence it is smuggled into England by way of Scotland. The poor people's wool is worked into frizes for the use of the men. The weavers who work these frizes and serges live about the country in the cabins. Immense quantities of raw wool are sent to Corke from all parts; 500 cars have been seen in a line; and it is supposed to be sent in large quantities to France. No emigrations. All the poor people are roman catholics, and among them are the descendants of the old families who once possessed the country, of which they still preserve the full memory, insomuch, that a gentleman's labourer will regularly leave to his son, by will, his master's estate.

IRELAND has very few such farmers as Mr. Aldworth; for above 600 acres in tillage is such a business as I have no where met with. In his improvements,

ments, turnips formed a considerable article; in the year 1772 he began with one acre: in 1774 he had two acres: in 1775, five acres: and this year, eight. He has always hoed them, but not yet in any perfection, though improving. He fed them on the land with sheep by means of hurdles; they were chiefly fat wethers, and the benefit he found very great; being able by no other means, to keep them fat, which the turnips did in great perfection. He also carted some off for stall feeding bullocks and cows, which answered perfectly well. A very great advantage he found from turnips in the barley which succeeded, being incomparably better than after any other preparation. Mr. Aldworth is, upon the whole, so well persuaded of the advantage of the culture, that he is determined to increase the quantity every year, till he gets a fourth part of his farm under them. The effect of lime was never displayed in a clearer manner than upon Mr. Aldworth's farm. The soil, I should observe, is a loam and brick clay, on a rock of limestone, from nine inches to three feet deep; but what is remarkable, all the loose surface stones are grit, and all the quarries lime-stone. Upon this soil he has found the benefit surprizingly great: where he limes he gets very good crops; and where he does not he can get no crops at all. In my life I never saw this clearer displayed than in two of his fields this year, one wheat and the other barley; in each there was about an acre not limed, but all the rest had 100 barrels an acre; the parts limed had a very fine crop, but those two spots a wretched one; literally speaking, not worth mowing; and another smaller patch in the barley field the same; the crop excellent to an inch where the lime was laid, and im-

mediately adjoining nothing but weeds. Another experiment, shewing the great efficacy, was a comparison he made of it with the sheep fold; he folded part without liming in a field, the rest of which was limed, and the superiority of the latter part was very great. Mr. Aldworth spreads it on his fallows for wheat, and on his potatoe land for barley. It is to be noted that this land was never limed before. Upon another part of his farm which had been limed, he does not find the benefit to be equal. He burns his lime in both running and standing kilns; in the former with culm, and the expence to him is 8d. a barrel roach. In the standing kilns he burns without breaking the stones, 1500 barrels at a time with faggots, and in this way it is 6d. a barrel. These kilns, he remarks, should be built with very great strength, or the extreme heat of the fire bursts the masonry. His liming has been upon so extensive a scale, that last year he had seven kilns burning, two of them standing ones, and burned in all above 10,000 barrels, and as much this year, all for manuring his own farm. Mr. Aldworth has erected a bolting mill, which will grind 5000 barrels of wheat, and it is curious to observe the effect of it as a newly-established market: the first year he ground 1100 barrels, being all he could get; the next year, the present, it will be 5000. He has also taken pains to improve the breed of sheep, by buying English ewes. The same attention he has given to swine and various other articles. Reynold's turnip cabbage he has planted two years for late feeding of sheep in the spring: he finds them of excellent use, and is determined never to be without them. He began to plant hops in 1772 upon half an acre of land, a fine rich red loam a yard deep; they succeeded

succeeded perfectly well ; and the second year yielded 8cwt. the half acre of good hops. In 1773 he added two acres : in 1775 he planted another acre : last year the crop failed, not getting above 3 or 4cwt. This year he has a very good appearance. Has not found the climate at all against them ; and is clear that it may be a very advantageous branch of culture. He, however, remarked, that they are not so strong as English hops, owing, perhaps, to want of experience in drying, &c. He manures them every third year. Mr. Aldworth is the only person in this country that folds his sheep ; he finds the practice very useful, but not equal, as observed before, to lime.

SEPTEMBER 11th, accompanied Mr. Aldworth and family to his neighbour, Mr. Hyde's, on the banks of the Black Water, which are very chearful, any many of the views fine, particularly from the yard of a new church on the river : pass many large woods in sight. Mr. Hyde's is a place entirely of his own forming. The lawn before the house has a very pleasing inequality of surface, and the whole scenery well improved and chearful.

It was with regret I left so agreeable and liberal a family as that of Annsgrove, nor should I forget to mention that every thing about the place had a much nearer resemblance to an English than an Irish residence, where so many *fine* places want *neatness*, and where, after great expence, so little is found *complete*. Mrs. Aldworth has ornamented a beautiful glen, which winds behind the house, in a manner that does honour to her taste ; she has traced her paths so as to

command all the beauties of rock, wood, and a sweet river which glides beneath both: it is a most agreeable scenery.

SEPTEMBER 12th, to Doneraile with Mr. Aldworth. In our way called on a woollen manufacturer, Mr. Hannam, at Kilbrack, who gave me the following particulars of the trade. It consists in buying the wool about the country, and combing it upon their own account. The combers earn 10s. a week, or 40 balls at 3d. The fleeces he buys weighs 5lb. on an average. To every 22 stone of rough fleece there are 3 stone of short, coarse, and waste; 2 stone of the 3 are worth 10s. a stone, for coarse works, frizes, &c. the third stone 13s. 4d. The remaining 19 stone of combing wool give 8 balls each of 24 ounces. To each stone there is one pound and three quarters of pinions of short wool that comes out in the combing. These balls are given to women to spin, and 9d. a ball is paid them for it; a woman can spin the balls in two days and a half if she sticks to it all day; in three days and do trifles besides. Then the worsted, in skains twelve to the ball, is sent to Cork or Limerick for exportation. Not above one-sixth part, to his knowledge, is woven at home. Employs seven weavers making serges. 44 beer serges sell at 1s. 2d. a yard, 29 inches broad, and the pieces 136 yards long. He pays 2½d. a yard for weaving; and a man weaves eight in a day; weaves a piece in three weeks, and loses one day in that time in preparing his loom. The Connaught wool preferred; it is of a middling length, and a fine staple: the short wool the finest. At Charleville there are 30 looms. The serges are all sent to Dublin to a factor, who

who sells them at 5l. per cent. commission. Are in general sent to Scotland. The demand for them is better than it was: it has been improving for three years. But the prices of both serges and worsted have not risen proportionally to that of wool.

An Estimate of the Cloathing Trade.

	£.	s.	d.
20 Combers would comb in a year 5000			
stone of wool, at 16s per stone	4000	0	0
The said combers would comb 800			
balls a week, at 3d. per ball,			
comes to 10l. in the year	520	0	0
300 Women and girls to spin the above,			
and which would be the advantage of the clothier, to form into			
three houses or factories of 100			
each; their hire, at 9d. a ball,			
comes to	1560	0	0
60 Weavers would weave up the said			
worsted, at 8d. each a day, 24l.			
a week, the year	1248	0	0
50 Little boys and girls employed in			
said weaving, at 3d. a day each,			
comes to 3l. 15s. per week, in			
the year	195	0	0
Oil and soap would cost in the year	368	0	0
Carriage of wool, woollen goods,			
&c.	100	0	0
Sorting wool, washing it, &c.	80	0	0
Carried over	8071	0	0
			Brought

	£.	s.	d.
Brought forward	-	807	1 0 0
The year's profit I suppose to be	-	350	0 0
The yearly sum brought into the country where such trade is carried on		842	1 0 0

A VERY important information is to be drawn from this estimate, which is the proportion of labour to the wool in this manufactory.

	£.	s.	d.
Wool, at 16s.	-	4000	0 0
Combing	-	520	0 0
Spinning	-	1560	0 0
Weaving	-	1443	0 0
Sorting and carriage	-	180	0 0
Labour	-	3703	0 0
Oil and soap	-	368	0 0
		807	1 0 0

HENCE therefore it appears that wool at 16s. labour and drugs equal it, and that labour alone is as $9\frac{1}{4}$ to 10.

LET me not forget here to remark, that the country, within two or three miles of Doneraile, ranks among the best I have seen in Ireland; it is varied, much improved, well wooded, and very chearful.

To

To Lord Doneraile's, to whom I am indebted for a variety of useful intelligence; the situation of his house is on a beautiful rising ground, which slopes down to a winding vale, in which is a small river, accompanied by wood; from this river, on the other side, the grounds (all lawn) rise very boldly, and are entirely margined with wood: from the higher ones the view of the house and park is fine, especially at the gate which opens to Kilbrack, there the house is seen surrounded by very noble woods and a great variety of cultivated inclosures, intermixed with fields and thickly-planted hedges: the whole scene so pleasing, that it appeared to full advantage, though I had rode to it through a beautiful and even-dressed country in part of the way from Annsgrove. Near the house is a shrubbery, through which there are paths that lead to different parts of the farm, through new plantations, and in particular to a cottage, from whence there is a finely wooded scene, with the park lawn rising above it, scattered with single trees, and bounded by a margin of wood; the whole backed by distant mountains. The plantations and improvements which lead to and surround this cottage were the work of Lady Doneraile, and do credit to her taste.

RESPECTING his Lordship's husbandry, the following particulars deserve the attention of the reader. Three years ago he procured ewes from Leicestershire, in order to improve the breed. The sheep which were here before took three to a stone of wool, but now only two, and the wool is to the full as good as ever; and he finds that they are much more thriving

thriving and advantageous to keep, and easier fed than the sheep of the country: sheep, his Lordship finds the most advantageous stock of all others: he keeps six to the acre winter and summer. This he finds much more profitable than cows or fat cattle. Has tried many breeds of cattle, and finds that the long-horned English cow is the best for fattening. The Holdernefs for giving much thin poor milk, but are too heavy for winter feeding. The Kerry cow is much the best for milking in quantity of good milk. Hogs he has also tried of all sorts, and finds that nothing is so profitable as the black Indian breed with short legs, round carcases, and snub noses. For working, he finds the small mongrel Kerry beast works the best, and moves the fastest. He works them all by the horns, in the manner practised in the south of France, four in a plough at the first ploughing. He changed the manner in which Lord Shannon brought it over, from the yoke which couples them, to going single with double traces; this he finds much the most beneficial manner; they move quicker and with greater power, from being free and working not in couples; besides being applicable to all sorts of work which requires their going single. English waggons Lord Doneraile has tried and laid aside, from finding, on experience, that they are very much inferior to the common Irish car in hay harvest, dung, lime, &c. but he uses one-horse carts for many sorts of work. Turnips he has cultivated for some years, hoes them, and gets good crops, but best in the drill way, the rows two feet asunder: he uses them in feeding sheep, and also fattening beasts. He finds that they are not of any considerable use in this country, com-
pared

pared to others where there is not an equal plenty of grass, which springs all winter. When most wanted, which is in april and the beginning of may, they are gone. Cabbages he has tried upon a large scale three years; last year and the year before, he had eight or nine acres, and used them in feeding and fattening cattle and sheep; has found them preferable to turnips far, in all uses in feeding cattle; but an acre of the latter will produce much more. Fern he finds is best destroyed by mowing it twice a year in june and the beginning of september. He makes his tillage exceedingly profitable by the use of lime. His course of crops,

1. Wheat, yielding 10 barrels per acre, and has measured 15 barrels, 15 stone per acre. 2. Barley, the produce 14 or 15 barrels, and of small six rowed barley 20. 3. Oats, 20 barrels. 4. Clover laid down for grass, or for one year, and ploughed it up as soon as cleared for the hay.

LIME he spreads on all lands for wheat, barley, &c. 80 barrels of roach an acre cost 6d. a barrel burning. The effect is amazingly great, insomuch that it is the difference between a great and a bad crop. In general there is no ground worth 20s. an acre, that if you lime at 80 barrels, and take wheat, barley, and oats, it will then be worth 30s. This is certainly a marvelous improvement! Lord Doneraile knows, from an experiment of his brother's, that it is equally well adapted to boggy bottoms; he had five acres, which he let for 10s. 6d. the whole, and was so hard a bargain to the poor men, that an allowance was made for it. His brother took it, and limed

limed it, and then mowed *five tons of hay per English acre* ! In his Lordship's park he has a wheel for raising water, an improvement on the Persian, which raises a regular steam 28 feet ; the stream which turns it is confined by a double wall to the exact dimension of the boxes, which take in the water, and it works constantly and regularly without trouble or expence. Lord Daneraile has erected a granary upon a new construction, that of a flue in the walls for a fire to air the whole building, and dry any damp corn that may happen to be in it. He dried the walls after building with it perfectly in a short time. This granary is so completely built, that not a mouse can possibly get in it : it has a thorough air with lattice windows of wire. By the way, these flues are a proof, if one was wanting, how much moister the climate of Ireland is than that of England. He has planted the cluster potatoe, called here *bullt* and *bucks*, so much as six or seven acres ; gave them to horses, cows, and sheep : the horses that would eat them did well, and in a little time believes would all come very well to them. Fat cows and bullocks did exceedingly well : fat sheep were put to them ; but several dying both years, made him leave the practice off. Of other sorts of potatoes, he finds the *London lady* and the *apple* to be the best sorts. The *London lady* is particularly valuable for one circumstance, which is the stalks withering, and the crop being ready to take up, from a month to six weeks before any other sort ; consequently, the best sort to plant as a preparative to wheat. Hops he has planted two years ago, in order to see how far they will answer ; and expects to be able to get not only good hops, but a great crop. One mode of managing

naging them he has in meditation, which is a good thought, and that is to train them horizontally instead of perpendicularly, like espaliers, on account of the storms and blights which hops, in the common way, are subject to from the height. Has compared the rotten lime-stone and lime in a 20 aced field for wheat, 10 of the one and 10 of the other, and found the wheat equal, both very good. Has observed the common farmers, after manuring with it, to take 12 and 14 crops of white corn running; and then leaving it for grass, which not coming, they complain that it is not good for grass, but burns it up. But Lord Doneraile advised a friend to lay down, after two or three crops, which being done, the grass that followed was perfectly fine.

His Lordship's lime-kiln is one of the completest I have any where seen; it is at bottom 16 inches diameter, leads up to 12 feet wide in the widest part, 20 feet high from the bottom, 7 feet from thence up, and at the top 9 feet diameter. Over the top, a roof and a porch to it, and it draws 44 barrels of roach lime a day, which takes 6 of culm; burns for 5½d. a barrel. The culm 2s. 5d. a barrel at the kiln. Labour 4s. and culm 15s. a day.

SEPTEMBER 13th, left Doneraile, and went to Col. Jephson's at Mallow. He was at that time confined with the gout; but his son, Denham Jephson, Esq; (member for Mallow) took every means for my information, in the circumstances I enquired after. About that place the courses are,

1. Potatoes.

1. Potatoes on stubbles, or grass dunged. 2. Potatoes. 3. Wheat or bere. 4. Oats. 5. Oats. 6. Oats.

1. Fallow. 2. Wheat. 3. Oats. 4. Oats. 5. Oats. 6. Oats. The measure the English acre.

Of potatoes they plant 6 common barrels, and get 42: sometimes take three or four successive crops. Of wheat they sow three pecks and a half each three cluggets, each clugget 11 quarts, and get 8 barrels. The crop of bere is 12. Of oats 12. Rents of town parks 2l. 2s. to 3l. other lands 10s. to 30s. average 12s. There are many dairies, up to 60 cows, which are all let to dairymen; at 50s. to 3l. 10s. of good land it will take one acre and a half to feed a cow. They make both butter and cheese, but where the latter is made, no butter, selling the cheese at 4d. a pound. A cow makes one cwt. of butter in the season. When cows are let, none are taken that do not give two gallons of milk; good cows give four gallons. Col. Jephson had a cow half bred, between the English long-horned and Holderness, that was forced to be milked three times a day, and gave 12 gallons a day, many times in the presence of various persons. Every dairyman is allowed a house, a garden of one acre and a half, and grass for a horse, a cow, and some a collop of sheep. Great quantities of lime are used; they lay 100 barrels an acre at 1s. 1d. They plough with horses, four or six to a plough. The poor pay 10s. rent for a cabin, and 20s. for one acre for potatoes; 2l. 2s. for grass for a cow, and 10s. for the winter's hay. They live upon potatoes generally the year through; all of them keep

keep cows and pigs, which latter they feed on small potatoes. Their circumstances are not better than 20 years ago: for though they have now 6d. and then had but 5d. yet the rise is not proportioned to that of rents. Villages of cottars will take farms in partnership in the manner I have often described. The soil of the country is in general lime-stone; but from Knockrera mountain, near Mallow to Corke, there is no lime-stone.

LEASES are 31 years, or three lives, and some for three lives and 31 years after; and many farms let to middle men, who occupy no part of the land themselves, but relet it. Above one-third of the county is waste land.

THERE are collieries about 10 miles off, near Kantark, from which coal is sold at 3s. a barrel, it is large and hard. Upon the river Blackwater, there are tracts of flat land in some places one quarter of a mile broad; the grass every where remarkably fine, and lets at 30s. It is the finest sandy land I have any where seen, of a reddish brown colour, would yield the greatest arable crops in the world, if in tillage; it is five feet deep, and has such a principle of adhesion, that it burns into good brick, yet it appears a perfect sand. In floods much of it is overflowed. The banks of this river, from its source to the sea, are equally remarkable for beauty of prospect, and fertility of soil.

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fullage of the streets of Mallow, which is constantly bringing away; by means of this regular attention, united with the goodness of the soil, he has brought it into that high degree of heart, indicated by the rent, at which it would let. The whole is divided into fields, of a moderate size, with double quick hedges; well planted with trees, and kept in the most perfect degree of neatness; between the hedges are gravel walks, so that there is a planted communication about all the fields; the gates are neat and light, and every attention preserved to ornament the whole. The quantity of tillage is not considerable, but his crops very great, barley up to 20 barrels per acre. Mules, of which he has some very fine ones, he finds more useful and hardy than horses. Mr. Jephson has weighed to the dragoons, at the barraeks, from 28 acres of grass, $3\frac{1}{4}$ tons of hay per English acre. He has kept a particular account of his domain, and has fed his deer, horses, cows, house, &c. and sold to the amount of 55s. an acre besides. I walked to the spring in the town to drink the water, to which so many people have long resorted; it resembles that of Bristol, prescribed for the same cases, and with great success. In the season there are two assemblies a week. Lodgings are 5s a week each room, and those seemed to be miserably bad. Board 13s. a week. These prices, in so cheap a country, amazed me, and would, I should fear, prevent Mallow from being so considerable, as more reasonable rates might make it, unless accommodations proportionable were provided. There is a small canal, with walks on each side, leading to the spring, under cover of some very noble poplars. If a double row of good lodging houses were erected here, with public rooms, in an elegant style,

style, Mallow would probably become a place for amusement, as well as health.

SEPTEMBER 14th, to New Grove, the seat of Robert Gordon, Esq; in whom I met the greatest zeal for giving me a correct information. Passed, at some distance, a very large house building, to the right of the road, in a good situation, by Sir Robert Dean. New Grove is an entire new improvement of Mr. Gordon's, the whole place, some years ago, being a waste moor, or mountain, as it is called in Ireland.

MR. Gordon took it for improvement; the soil and bog five to nine spits deep, and under it a black earth, or a reddish sand, and in some a whitish clayey substance, but not marle; many springs in it, which were carried off by drains; and then the whole surface of turf cut out, and carried to Corke; cutting, &c. 30s. a roo, and sold there at 5l. this was done in order to get lime, which is not upon the land, and by this means the lime came to seven-pence halfpenny a barrel; found many stones and great roots, and timbers, which were all cleared away, and the land ploughed with oxen, before winter; then left the winter three ploughings given in the spring, and fifty barrels of lime, spread and sown with oats and clover; the crop very great; could be sold for 4l. an acre; the clover fine. This was cut for hay, and the second weighed 231 lb. per English perch square, and a horse that was starved nine hours, eat in twenty-four hours 107 lb: and after these two cuttings, there was a third for soiling with in october: it was then sowed with a second crop of oats, and that with clover which was left, and has been mown every year for eleven years since; this was one field

in particular, but all in the same manner, and would let for one pound an acre readily; all expences of the three crops, including the lime, cost 6l. 7s. 9d. an acre, so that the mere improvement was profitable, besides the increase of rent. At Carrick-duff, 650 acres of heath, &c. the black soil thin, and the heath low, and under it a brown loam, with whitish gravel, mixed, were fallowed with strong ploughs, fourteen inches deep, for a year; then limed, 50 barrels an acre, at seven-pence three farthings on the land, burnt on the spot, and upon this oats sowed, and clover for a meadow; the oats great, the grass part of it actually let at 1l. 1s. Has prosecuted this improvement with such spirit, that last year he laid on 10,000 barrels of lime, and has 73 acres of oats, 34 wheat, 12 potatoes, and 100 laid to grass, and all this in two years. Has there built a farm-office, 154 feet long, a barn, stalls for thirty bullocks, two stables, and a room for the steward; and has made 1750 perch of ditches, planted with quicks. These Mr. Gordon does in two years, half the ditch in one to leave it to sink, and the other half the year after. Turnips he has had, and got very fine crops of 6 lb. the average turnip; they thin them by hand, which he thinks upon this land is preferable to hoeing; used the crop in stall-feeding 30 bullocks, which had, besides the turnips, half a hundred weight of hay to fix each day, and found that they thrived exceedingly well on such turnips as were not above three to six pounds weight, but upon the large ones they did not thrive. In november he cleared the field of all, stacked them, and they kept perfectly till april. Found that the sheep, fed at New Grove, would not take to turnips till starved to them. Imported a man from Norfolk, to whom he gave forty guineas

guineas a year with board, who brought ploughs, hoes, &c. with him; gave him a guinea for every boy he taught to plough, and every boy who could fairly plough had a shilling a day wages. By this means he has collected a set of excellent ploughmen, who have been of infinite use, so that he has to this day ploughed with Norfolk and Suffolk ploughs, worked with a pair of horses, and no driver except the first and second ploughing of fresh land, which, and dragging, he does with great drags of 18 cwt. and drawn by bullocks. This improvement is of particular consequence, as there are here twelve miles square of rich land, taken almost in a square between Mallow and Corke, one way, and the Bogra mountains and Nagles the other; upon all which there is not a stone to interrupt the plough, sometimes not a stone to an acre.

HE is convinced, from experience, that the worst of this vast tract may be drained, inclosed, limed with fifty barrels, and tilled with a crop of oats on it, for 5l. an acre. In the neighbourhood, a great improvement of 1200 acres, without lime or gravel, and badly done, yet let at 12s. an acre. Six-7ths of the county of Corke at 2s. an acre, one-7th, 10s. of Kerry, nine-10ths, at 1s. and one-10th, at 10s.

Six years ago, Mr. Gordon established a linen manufactory, and bleach mill, upon the compleatest scale; a factory of eleven looms for damask, bleacher's house, and other buildings, with a reservoir of water for turning the wheel; the whole well-built, well-contrived, and at the expence of 1200l. Kept these looms constantly at work, and at the same time bleached many pieces for the country people. Trusted

to a manager for the conduct of the works, who broke, which put a stop to them, otherwise there would have been a flourishing manufactory established, spinning flax coming in, but the woollen through the country; and from hence to the north-west and Duhallow barony is the great country for spinning cotton.

SEPTEMBER 15th, to Blarney Castle, S. J. Jefferys, Esq; of whose great works in building a town at Blarney, I cannot give so particular an account as I wish to do; for I got there just as he and his family were on the point of setting out for France. I did not however let slip the time I had for making some enquiries, and found that in 1765, when Mr. Jefferys began to build this town, it consisted only of two or three mud cabbins; there are now 90 houses. He first established the linen manufactory, building a bleach-mill, and houses for weavers, &c. and letting them to manufacturers from Corke, who have been so successful in their works, as to find it necessary to have larger and more numerous edifices, such as a large stamping mill for printing linens and cottons, to which is annexed another bleach-mill, and since there has been a third erected; the work carried on is that of buying yarn; and weaving it into linens, ten pence to thirty pence white; also diapers, sheeting, ticking, and linens and cottons of all sorts printed here, for common use and furniture. These several branches of the linen, employ 130 looms, and above 300 hands.

ANOTHER of Mr. Jefferys's objects has been the stocking manufacture, which employs 20 frames, and 30 hands, in buildings erected by him; the manager employing

employing, by covenant, a certain number of apprentices, in order by their being instructed, to diffuse the manufactory. Likewise a woollen manufactory, a mill for milling, tucking, &c. broad cloths; a gig mill for glossing, smoothing, and laying the grain; and a mill for knapping, which will dress above 500 pieces a year, but will be more, when some alterations now making are finished. A leather mill for dressing shamoy and buck skins fully employed. A large bolting mill, just finished, and let for 132l. a year. A mill, annexed to the same, just finishing, for plating; and a blade mill for grinding edged tools. A large paper mill, which will be finished this year. He has been able to erect this multiplicity of mills, thirteen in all, by an uncommon command of water.

THE town is built in a square, composed of a large handsome inn, and manufacturers houses, all built of excellent stone-lime, and slate. A church, by the first-fruits, and liberal addition of above 300l. from Mr. Jefferys. A market-house, in which are sold a hundred pounds worth of knit stockings per week. Four bridges, which he obtained from the county, and another (the flat arch) to which he contributed a considerable sum. Much has been done, yet is not the design near finished.

To shew the magnitude of these works, and the degree of public good resulting from them, I shall mention the expence at which they have been executed. Respecting the principal bleach mill, Messrs. Forest and Donnoghue, under the linen act, took fifteen acres, at a guinea an acre, upon which they have expended 5000l. in erecting a linen mill and

bleach green, twenty-five houses for twenty-five weavers families, four looms in each house, a large dwelling-house for themselves or their director, in each house, a man, his wife, three apprentices, two girls and two boys, besides infants. In a short time the farm was increased, and land, which before had only brought half a guinea, then let for a guinea. The linen board advanced 500l. to this work, and Mr. Jefferys repaid them 1400l. of the 5000l. The old rent of the premises was 40l. a year, the new rent 71l. Another bleach mill, which cost Mr. Jefferys 300l. to which the board added 300l. and the person to whom it is let, 600l. 40 acres of land, formerly let at 10l. a year, go with them. The whole rent now 80l. To this mill is since added an oat-mill, which cost 300l. two tuck-mills, 200l. a leather mill and kilns, 150l. two dwelling-houses, 300l. A stamping mill, which cost Mr. Jefferys 2,300l. to which the board added 300l. promising 1000l. more when the works should be finished, which they have been these two years. Twelve printing tables are kept going, and sixty-five hands employed. Twelve printers. Twelve tire boys. Three print-cutters. Eighteen bleachmen. Six pencillers. Two tub-men. One clerk. One callender. One manager. Two draughtsmen. Four coppermen. Three carters. Besides the above sums, the manufacturer has laid out 500l. The quantity of land occupied is 25 acres: old rent, 6l. 10s. new, 113l. 15s.

A stocking factory, for which Mr. Jefferys lent 200l. The man laid out 300l. himself; he occupies 50 acres, before let at 20l. a year; now at 76l. 11s. A gigg-mill, for which Mr. Jefferys lent 300l. till repaid by the Dublin Society, who granted 300l.

200l. towards it, and the tenant laid out 200l. the quantity of land he has is eleven acres, let at 5l. 10s. now at 36l.

A manufactory of tape is established, by which means six acres of land are advanced, from 2l. 8s. to 9l. They have three looms going, which make 102 pieces a day of 36 yards each. The Dublin Society gave 20l. to it. A paper mill, which has cost Mr. Jefferys 1100l. and is not yet let. A bolting mill, on which he has expended 1100l. the tenant 500l. on adding an iron mill. Twenty acres of land, rent before, 9l. 10s. rent of the whole now 132l. 13s. The church has cost Mr. Jefferys 500l. and the first-fruits 500l. more. The new inn, 250l. and the tenant 300l. more. Seventy acres of land before, at 20l. a year, now at 83l. 9s. A dwelling-house, 250l. to which the tenant added 500l. Ninety acres of land, before let at 54l. the new rent is 74l. Twelve cottages, and a lime-kiln, which cost 280l. Two dwelling-houses and a forge, which cost him 150l. and to which parliament granted 250l. more. Upon the whole, therefore, Mr. Jefferys has expended 7,630l. in these establishments. Of public money there has been added 2,170l. and the tenants themselves laid out 9,050l. in all expended here, 18,850l. besides what Mr. Jefferys laid out on bridges, &c. in the whole, very near, if not full, 20,000l. upon matters of a public nature. In all these establishments, he has avoided undertaking or carrying on any of the manufactures upon his own account, from a conviction that a gentleman can never do it without suffering very considerably. His object was to form a town, to give employment to the people, and to improve the value of his estate by so doing; in all which

which views it must be admitted, that the near neighbourhood of so considerable a place as Corke very much contributed: the same means which he has pursued would, in all situations, be probably the most advisable, though the returns made might be less advantageous. Too much can scarcely be said in praise of the spirit with which a private gentleman has executed these works, which would undoubtedly do honour to the greatest fortune.

To animate others to tread in such laudable steps, I may remark, that even the profit of these undertakings is too much to be entirely forgotten; the expences are by no means barren ones; 327 acres let before these works at 167*l.* 18*s.* let afterwards at 682*l.* 8*s.* Profit 508*l.* 10*s.* without reckoning any thing for two dwelling-houses, a forge, twelve cottages, and a lime-kiln, which may moderately be reckoned at 25*l.* a year, and yet let at rents of favour, in all 533*l.* 10*s.* which from 7630*l.* is 7 per cent. There is no improvement in agriculture that would not, with much greater certainty of continuance, pay 17. At the same time, however, there is a greater reversionary advantage in the benefit resulting from the increasing of the rents at the expiration of the leases, upon undertaking these works, the longest of which is for no more than three lives. Another advantage which is felt already, is, the rise in the prices of products at Blarney, which is a direct premium to agriculture, to the farmer, and to the landlord. Dairy cows, on all the adjacent farms, arose in two years from 3*l.* to 4*l.* a cow, as the weavers were happy to get milk and butter at the same price it sold for in Corke. The same rise took place on corn, potatoes, &c. Mr. Jefferys, besides the

the above establishments, has very much improved Blarney Castle and its environs; he has formed an extensive ornamented ground, which is laid out with considerable taste; an extensive plantation surrounds a large piece of water, and walks lead through the whole; there are several very pretty sequestered spots where covered benches are placed.

ACCOMPANIED Mr. Jefferys, &c. to Dunkettle, the seat of Dominick Trent, Esq; who, with a liberality of sentiment which renders him deservedly esteemed, took every measure I could wish for my information. The road leads very beautifully on the side of the harbour under a shore of bold hills, on which are many villas and some plantations. For the following particulars concerning the neighbourhood, I am indebted to that gentleman.

ON the south side of the river, &c. the soil is a fine lime-stone; the country level for a mile or two, then swelling into very gentle hills. On the north side, which is much better planted, particularly at Lota, Dunkettle, &c. the ground rises in bold ascents, adorned with many beautifully-situated country-houses. Here the stratum is brown, or rather red stone, and the surface shallow; in some places a burning gravel. There is a good deal of arable land on the sides of the hills. The course of crops:

1. Potatoes. 2. Wheat. 3. Barley or oats. 4. Lay down with seeds.

POTATOES yield per acre from 10l. to 20l. Average quantity fifty barrels, at eighteen stone each. Land manured and let to labourers for planting, at four or five

five guineas an acre. Wheat from seven to ten barrels of twenty stone, at 20s. a barrel; average price from 19s. to 24s. per barrel. The manures are Corke dung of the richest kind, especially in the slaughtering season; sea sand for tillage, and bank sand from the river for grass grounds. There is water-carriage to the eastward for many miles: several good quays for landing manure, particularly one at Glanmire, near Dunkettle, from which the inland inhabitants draw the manure four or five miles in one-horse carts. Lime is also much used at a shilling a barrel. The meadows in this country yield from $1\frac{1}{2}$ to 3 tons of hay per acre, at 40s. to 45s. per ton on an average. Dairies are let to dairymen at 4 to 5 guineas a cow. Many sheep are kept on the hills, but none folded. The diet of the poor is potatoes and milk, with some fish in the herring and sprat season. Labourers houses from 25s. to 40s. a year. Fuel, a very little coal, the rest supplied by bushes, stolen faggots, &c. as there is no turf in this part of the country. Price of labour 6d. per day through the year, on a pinch in harvest 8d. sometimes more, but within the liberties of the city generally 8d. Women 3d. and 4d. a day in reeking corn: children from a 1d. to 3d. in picking stones, &c. Most employed in country business; a few at some bolting iron and paper-mills in the neighbourhood. From fourteen acres of orchard Mr. Trent makes sixty hogheads a year of cyder; a clear acre of good trees about seven hogheads. His hogs he feeds on the bull potatoes, which yield great crops without dung, and for two or three years successively.

SEPTEMBER 16th, to Cove by water, from Mr. Trent's quay. The view of Lota is charming; a
fine

fine rising lawn from the water, with noble spreading woods reaching on each side; the house a very pleasing front, with lawn shooting into the woods. The river forms a creek between two hills, one Lota, the other opening to another hill of inclosures well wooded. As the boat leaves the shore nothing can be finer than the view behind us; the back woods of Lota; the house and lawn, and the high bold inclosures towards Corke, form the finest shore imaginable, leading to Corke the city appearing in full view, Dunkettle wooded inclosures, a fine sweep of hill, joining Mr. Hoare's, at Factory-hill, whose woods have a beautiful effect. Dunkettle house almost lost in a wood. As we advance, the woods of Lota and Dunkettle unite in one fine mass. The sheet of water, the rising lawns, the house in the most beautiful situation imaginable, with more woods above it than lawn below it. The west shore of Loch Mahon, a very fine rising hill cut into inclosures, landlocked on every side with high lands, scattered with inclosures, woods, seats, &c. with every cheerful circumstance of lively commerce, has altogether a great effect. Advancing to Passage, the shores are various, and the scenery enlivened by fourscore sail of large ships; the little port of Passage at the water's edge, with the hills rising boldly above it. The channel narrows between the great island and the hills of Passage. The shores high, the ships scattered about, with the inclosures hanging behind the masts and yards, are picturesque. Passing the freight, a new basin of the harbour opens, surrounded with high lands. Monk's-town-castle on the hill to the right, and the grounds of Ballybricken, a beautiful intermixed scene of wood and lawn. The high shore of the harbour's mouth opens gradually; the whole scene

scene landlocked. The first view of Hawl-bowling-island and Spike-island, high rocky lands, with the channel opening to Cove, where are a fleet of ships at anchor, and Rostellan, Lord Inchiquin's house, backed with hills, a scenery that wants nothing but the accompaniment of wood. The view of Ballybricken changes; it now appears to be unfortunately cut into right lines. Arrived at the ship at Cove; in the evening returned, leaving Mr. Jefferys and family on board for a voyage to Havre, in their way to Paris.

DUNKETTLE is one of the most beautiful places I have seen in Ireland. It is a hill of some hundred acres broken into a great variety of ground, by gentle declivities, with every where an undulating outline, and the whole varied by a considerable quantity of wood, which in some places is thick enough to take the appearance of close groves, in others spreads into scattered thickets and a variety of single groups. This hill, or rather cluster of hills, is surrounded on one side by a reach of Corke harbour, over which it looks in the most advantageous manner; and on the other by an irriguous vale, through which flows the river Glanmire: the opposite shore of that river has every variety that can unite to form pleasing landscapes for the views from Dunkettle grounds; in some places narrow glens, the bottoms of which are quite filled with water, and the steep banks covered with thick woods that spread a deep shade; in others the vale opens to form the site of a pretty cheerful village, overhung by hill and wood: here the shore rises gradually into large inclosures, which spread over the hills, stretching beyond each other; and

and there the vale melts again into a milder variety of fields. A hill thus situated, and consisting in itself of so much variety of surface, must necessarily command many pleasing views; to enjoy these to the better advantage, Mr. Trent (than whom no one has a better taste both to discover and describe the beauties of natural scenes) is making a walk around the whole, which is to bend to the inequalities of the ground, so as to take the principal points in view. The whole is so beautiful, that if I was to make the regular detour, the description might be too minute: but there are some points which gave me so much pleasure, that I know not how to avoid recommending to others that travel this way to taste the same satisfaction: from the upper side of the orchard you look down a part of the river, where it opens into a regular bason, one corner stretching up to Corke, lost behind the hill of Lota, the lawn of which swells among the woods; the house obscured, and therefore seeming a part of your home scene; the losing the river behind the beautiful projection of Lota, is more pleasing than can be expressed. The other reach, leading to the harbour's mouth, is half hidden by the trees which margin the foot of the hill on which you stand: in front a noble range of cultivated hills, the inclosures broken by slight spots of wood, and prettily varied with houses, without being so crowded as to take off the rural effect. The scene is not only beautiful in those common circumstances which form a landscape, but is alive with the cheerfulness of ships and boats perpetually moving. Upon the whole, it is one of the most luxuriant prospects I have any where seen. Leaving the orchard pass on the brow of a hill, which forms the bank of the
river

river Glanmire, commanding the opposite woods of Lota in all their beauty. Rise to the top of the high hill which joins the deer-park, and exhibits a scene equally extensive and beautiful; you look down on a vale which winds almost around at your feet, finishing to the left in Corke river, which here takes the appearance of a lake, bounded by wood and hills, and sunk in the bottom of a vale, in a style which painting cannot imitate; the opposite hills of Lota wood and lawn, seem formed as objects for this point of view: at your feet a hill rises out of the vale, with higher ones around it, the margins scattered wood; to the right, toward Riverstown, a vale; the whole backed by cultivated hills to Kallahan's field. Milder scenes follow; a bird's-eye view of a small vale sunk at your feet, through which the river flows; a bridge of several arches unites two parts of a beautiful village, the meadow grounds of which rise gently, a varied surface of wood and lawn, to the hills of Riverstown, the whole surrounded by delicious sweeps of cultivated hills. To the left, a wooded glen rising from the vale to the horizon, the scenery sequestered, but pleasing; the oak wood which hangs on the deer-park hill, an addition. Down to the brow of the hill, where it hangs over the river, a picturesque interesting spot. The inclosures on the opposite bank hang beautifully to the eye, and the wooded glen winds up the hill. Returning to the house I was conducted to the hill, where the grounds slope off to the river of Corke, which opens to view in noble reaches of a magnitude that fills the eye and the imagination: a whole country of a character truly magnificent, and behind the winding vale which leads between a series of hills to Glanmire.

PICTURES

CASTLE MARTYR. 401

PICTURES AT DUNKETTLE.

A St. Michael, &c. the subject confused, by Michael Angelo. A St. Francis on wood, a large original of Guido. A St. Cecilia, original of Romanelli. An assumption of the virgin, by L. Carracci. A quaker's meeting, of above 50 figures, by Egbert Hemskerk. A sea view and rock piece, by Vernet. A small flagellation, by Sebastian del Plombo. A madonna and child, small, by Rubens. The crucifixion, many figures in miniature, excellent, though the master is unknown. An excellent copy of the famous Danae of Titian, at Monte Cavallo, near Naples, by Cioffi of Naples. Another of the Venus of Titian, at the tribuna in Florence. Another of Venus blinding Cupid, by Titian, at the Palazzo Borghese in Rome. Another of great merit of the madonna Della Sedia of Raphael, at the Palazzo Pitti in Florence, by Stirn, a German, lately at Rome. Another of an holy family, from Raphael, of which there are said to be three originals, one at the king's palace in Naples, one in the *palais royal* in Paris, and the third in the collection of Lord Exeter, lately purchased at Rome. A portrait of Sir Patrick Trent, by Sir P. Lely. An excellent portrait of a person unknown, by Dahl.

SEPTEMBER 17th, to Castlemartyr, the seat of the Earl of Shannon, one of the most distinguished improvers in Ireland, in whom I found the most earnest desire to give me every species of information, with a knowledge and ability which enabled him to do it most effectually. Passed through Middleton, a well built place, which belongs to the noble Lord

402 CASTLE MARTYR.

to whom it gives title. Castlemartyr is an old house, but much added to by the present Earl; he has built, besides other rooms, a dining one 32 feet long by 22 broad, and a drawing one, the best rooms I have seen in Ireland, a double cube of 25 feet, being 50 long, 25 broad, and 25 high. The grounds about the house are very well laid out; much wood well grown, considerable lawns, a river made to wind through them in a beautiful manner, an old castle so perfectly covered with ivy as to be a picturesque object. A winding walk leads for a considerable distance along the banks of this river, and presents several pleasing landscapes. But let me hasten to objects of more importance: Lord Shannon's husbandry consists of many circumstances. I shall begin with

T U R N I P S,

WHICH Lord Shannon has cultivated upon a very large scale, as will appear from the following particulars. His father began the culture many years ago, which he continued till 1770, and then went largely into it. He had every year, from 1770 to 1774, both inclusive, 16 acres, and in 1775, 24. Has cultivated them in both broad cast and the drill method, the rows at three feet; but finding that the roots became too large, altered his method to 18 inches, in order to have more of them; the size will be seen by the following account.

Castlemartyr, Dec. 21st, 1771.

I THIS day measured a square perch of turnips, 16½ feet, drilled in rows three feet apart; there were 84 turnips on this perch, they weighed 7cwt. 2qrs.

which I compute to be 60 tons to the English acre; and there were vacant spaces in the rows within this perch where the turnips had failed, that would have held at least 10 large turnips more. I then pulled 84 turnips, the largest I could see, within about 15 yards of the above perch, and they weighed 15cwt. 15qrs. 17lb. which is about 125 ton, 29cwt. 20lb. I weighed two of the above turnips separately, one of them a white tankard, they each weighed 32lb. The white Norfolk was three feet eight inches in circumference. N. B. I neither manured nor burned the ground; it was naturally good; I tilled it well, and hoed the crop carefully.

SHANNON.

ONE of the above turnips Lord Shannon took with him to the Dublin Society, where it was seen by the whole city; but from my tour through the kingdom, I am afraid it did not animate so many as it ought. These large turnips were not raised in any peculiar spot, but were part of a field of eight or ten acres. The application of the crop has been generally by drawing and giving them to sheep on dry pastures; all sorts, but particularly fat ewes, they fattened admirably. Finds that the great benefit of the culture is having them near a very dry field, in order to manage them as abovementioned. He has found that they will do exceedingly well without manuring, especially if the land is an old rough pasture, or which wants to be broken up; fallowed well and thoroughly ploughed, produces great crops. Sea weed his Lordship has tried for them, spread about the thickness of dung, and it gave prodigious products. Upon the whole, he is clearly of

404 C A S T L E M A R T Y R.

opinion, that nothing can be more beneficial to the agriculture of Ireland than introducing this culture, and so well convinced of this, that he has always shewn his crops to farmers, weighed them before them, shewed the cattle fed, and took every pains to make them come into the culture, but in vain. As a preparation of corn they are incomparable; he has had very great crops of barley after them, such as were laid with every heavy rain from luxuriance. Wheat he has also sown after them, and got eight barrels an acre from seven stone of seed.

C A B B A G E S

LORD SHANNON cultivated also; generally has had five or six acres for four or five years; the sort the flat Dutch, and got very fine crops. Gave them to cattle of all sorts, who eat them very greedily, and did better upon them than upon turnips, but would not last longer than christmas, otherwise would have preferred them. The crops of corn after them neither better nor worse than after turnips. Tried also the Scotch and other sorts, but preferred the flat Dutch to any other. One great objection to both cabbages and turnips is the mildness of the season in Ireland, which is so great as to burst the cabbages, and make the turnips run to seed before their time. As to the grass springing so fast in winter, as to prevent the necessity of the culture, he does not find it. Cabbages must be well manured for.

P O T A T O E S.

LORD SHANNON planted 18 acres of potatoes with the plough, manuring only the furrows; horse and
hand

hand hoed them perfectly, to keep them free from weeds; did it twice, and purposed oftener, but the growth of the crop was so luxuriant, that neither the horse nor hoe could get through them. Took them up with the plough, and the crop proved exceedingly good, far better than they would have been in the common method.

DRILL HUSBANDRY.

LORD SHANNON'S expression of this mode to me was excellent, *I read myself into it, and worked myself out of it.* He tried it with wheat, horse and hand hoeing it perfectly, and got a very fine crop; an unexceptionable one for the mode, but the produce was not equal to the common way, while the expence, trouble, and attention, were endless, so that he was convinced, even by his success, that it could not be a beneficial mode of culture. For turnips also he prefers very much the broad-cast mode, and never began the drill method but as an ease of hoeing.

SOILING.

SOILING horses, &c. in summer, with grass mown every day, Lord Shannon has practised greatly, and finds it highly beneficial, and particularly for raising great quantities of dung.

SEA-SAND AND LIME.

THE manures which Lord Shannon uses are sea-sand and lime. He prefers the latter for brown flaty stone land, and sand for lime-stone land: has used

406 CASTLE MARTYR.

great quantities of it, though four to six miles from the sea. In one month he has brought 6719 barrels of it, at 5d. a barrel, or 139l. 19s. 9½d. for 67 acres, at 100 barrels an acre, and afterwards 50 more for a second dressing: the effect of it is very great, particularly in bringing daisies (*bellis*) on very poor land, and white clover when laid on good grass lands. If a bag breaks, and some accidentally falls on a waste, the man gathers it up as clean as he can, yet it is sure to bring a patch of white clover. Lime his Lordship burns in a long-necked kiln, which he finds to answer so well, that one barrel of culm burns ten of lime. He lets the kiln, and buys the lime at 1s. 4d. a barrel. Draws 26 barrels a day. The culm 4s. a barrel. The labourers hire 1d. a barrel for quarrying, breaking, and burning.

B O U N T I E S.

LORD SHANNON's bounties to labourers amount to 50l. a year. He gives them by way of encouragement; but only to such as can speak English, and do something more than fill a cart.

D I T C H E S.

HIS Lordship has made some double ditches of an extraordinary dimension; the center of them a parapet terrass, 13 feet 6 inches broad, with a hedge on each side of it, and with a riding between them: they are most completely done, and answer the double purpose perfectly.

L I N E N

CASTLE MARTYR. 407

LINEN MANUFACTORY.

LORD SHANNON established a factory at Cloghnikelty, in the year 1769, a bleach yard of 17 acres of land, with mills, &c. for bleaching the pieces that are wove in the neighbourhood. There are 94 looms at work in the town, 100l. a week laid out in yarn, and at three fairs 1800l. the amount of which is 7000l. a year; the cloth chiefly coarse: and this establishment has had great effect in increasing the manufactures in the neighbourhood.

COMPOSTS.

He is exceedingly attentive in forming composts. A river runs through Castlemartyr, part of which is often full of sand and mud; this he empties periodically and mixes it with lime. In one field I saw larger compost heaps of these materials, than I remember any where else to have observed; one of these was 105 yards long, nine broad, and four feet high, containing cubical yards - - - 1260
 Another, 78 and 8 broad, and 4 feet high - - 832
 Another, 155 by 5, and 4 feet high - - - 1033
 Another, 76 by 5, and 4 feet high - - - 506

Total - 3631

Among these hills were 2000 barrels, or 8000 bushels of lime mixed: after this it is needless to say, that he manures his land with uncommon spirit.

108 CASTLEMARTYR

WASTELAND.

His Lordship has reclaimed 109 acres of furze land, which he has eradicated, and brought to a very profitable soil.

WALLING.

LORD SHANNON has inclosed 380 acres with a most excellent wall, eight feet and a half high under the coping, and eight inches above it. The wall is two feet thick at bottom, and eighteen inches at top, and costs 4s. per perch, or 11, 16s. running measure.

BARN.

THE best built barn I have seen in Ireland, is at Castlemartyr. The bays and threshing floor are 14 feet high, and over them are two stories for granaries, the first eight feet two inches high, and the upper one eight feet nine inches besides the roof, with a door in the center of the floors, and a wheel for winding sacks up. It is built in such a manner, the doors, &c. so plated every where at the edges with iron, that it is impossible a mouse should get in or out; or that a rat should any where gnaw his way in. Upon clearing it last year, about 20 mice were found that had been carried in in the sheafs, a little straw was laid for them in a corner, and the barn shut for a fortnight, at the end of which time they were found alive, and killed, not one being able to escape. I have seen very fine barns built in England, on cap stones, into which no vermin could get, unless carried in, but when they were carried in, they had a million of ways to get out.

BULLOCKS

BULLOCKS DRAWN BY THE HORNS.

LORD SHANNON upon going into tillage, found that the expence of horses was so great, that it eat up all the profit of the farm; which made him determine to use bullocks; he did it in the common method of yokes and bows, but they performed so indifferently, and with such manifest uneasiness, that he imported the French method of drawing by the horns; and in order to do this effectually, he wrote to a person at Bourdeaux to hire him a man who was practiced in that method. Upon the correspondent being applied to, he represented difficulties attending it, the man who was spoken to having been in Germany for the same purpose. Upon which Lord Shannon gave directions that every thing should be bought and sent over which the labourer wished to bring with him. According, a bullock of the best sort, that had been worked three years, was purchased; also a hay-cart, a plough, harrows, and all the tackle for harnessing them by the horns, which, with the man, were sent over. His salary was to be 400 livres a year, with board, &c. The bullock, 218 livres; tackle for two bullocks, 36. Two carts, 314. A plough and harrow, 123, which, with other expences, came to 45l. 17s. and freight 16l. 16s. Upon the whole, the experiment cost, from first to last, to bring it thoroughly to bear, about an hundred pounds. His Lordship is persuaded, that the first year of his introducing it at large on his farm, saved him the whole. He has pursued the method ever since, and with the greatest success. He finds the bullocks so perfectly at their ease, that it is a pleasure to see them; for first breaking up lays, and for cross ploughing, he uses four, but in all succeeding earths, only

only two; nor more for the first ploughing of stubbles: I saw six ploughs doing this in a wheat stubble, and they did it five or six inches deep with great ease. Upon first introducing it, there was a combination among all his men against the practice, but Lord Shannon was determined to carry his point; in this matter, he followed a course that had all imaginable success: one lively sensible boy took to the oxen, and worked them readily. His Lordship at once advanced this boy to eight-pence a day: this did the business at once; others followed the example, and since that he has had numbers who could manage them, and plough as well as the Frenchman. They plough an acre a day with ease; and carry very great loads of corn, hay, coals, &c. Four bullocks in the French cart brought twelve barrels of coals, ship measure, each 5 cwt. or three tons, but the tackle of the fore couple breaking, the other two drew the load above a mile to a forge. Two of them drew 35 cwt. of flag stone, three miles with ease; but Lord Shannon does not in common work them in this manner, three tons he thinks a proper load for four bullocks. Upon the bailiff, Mr. Bere, mentioning loads drawn by these oxen, that appeared to me most extraordinarily great, I expressed many doubts, his Lordship immediately ordered the French harvest cart to be loaded half a mile from the reeks; it was done; 1020 sheafs of wheat were laid on it, and two oxen drew it without difficulty; we then weighed forty sheafs, the weight 251 lb. at which rate the 1020 came to 6375 lb. or above three tons, which is a vast weight for two oxen to draw; I am very much in doubt whether in yokes they would have stirred the cart so loaded. The use of yokes is out of the question. The only comparison now wanting is with collars.

LORD

CASTLE MARTYR. 411

LORD Shannon has an excellent way of managing all his cattle in one circumstance, which is to mark them on the horn with numbers, and keeps a book engraved in columns, by which means, on turning to the number, he sees every particular of the beast, which are inserted in the columns. He trains them for work at three to four years old, gently breaking them in at once, without any difficulty.

THE common husbandry about Castle Martyr, will be seen from the following account, for which particulars I am obliged to the attention of this patriotic nobleman, who took every method to have me well informed. Farms rise from one hundred to three hundred acres, but some to one thousand, of which size Lord Middleton has one. They are not taken in partnership so much as in other parts; two or three will take a farm of thirty or forty acres, but it is not general. The soil is various; the vale, from Carricktowel to Killay, of ten or twelve miles long, and four over, is of lime-stone; the hills are brown stone; the loam upon it from three inches to eight feet deep, strong, rich and good; dry in winter, and good turnip land. These lime-stone rocks are full of cavities and subterraneous passages, so that if you cut a drain to carry water off, and touch upon a lime-stone rock, probably all will find its way. Rent of the barony of Imokilly, on an average, twelve shillings an acre; Kilnaltan, eight shillings. A third part of the county is waste land, the price of which is risen extremely in a few years; rent, one shilling; the rest of the county, eight shillings. The course of crops:

1. Po-

412 CASTLE-MARTYR.

1. Potatoes, upon clay ground, dinged and ploughed at 3l. plant six barrels at two and a half cwt. produce 50 to 100 barrels; potatoes sell 2s. to 4s. a barrel.

2. Wheat, sow twelve stone, produce five barrels.

3. Oats, on one ploughing, sow a barrel of fourteen stone, crop eight barrels. Some poor people take one or two more crops of oats.

4. Lay out for grafs from two to twelve years, They sometimes burn for potatoes, especially on the absentee estates, and get as good crops as in the other way.

Expence of an acre of potatoes.

	£.	s.	d.
Rent	3	0	0
Seed	0	18	0
Planting and trenching, forty days, of a man	1	0	0
Taking up, and carrying home, &c.	1	0	0
Tythe	0	6	0
	6	4	0

PRODUCE.

	£.	s.	d.
Seventy barrels, at 3s.	10	10	0
Expences	6	4	0
Profit	4	6	0

A dif-

A dispute arising upon the produce of potatoes, Lord Shannon ordered some spades square (each $5\frac{1}{2}$ feet) to be taken up, and weighed them; the weight, on an average, 19 lb. per spade, or 108 barrels per acre, each 252 lb. that is, 12 weights to the barrel, each 21 lb. These were his own potatoes, and not an extraordinary crop. Barley is sometimes put in instead of oats, and bere instead of wheat. A crop of bere produces 10 barrels; barley yields 8. No turnips or rape. A few of the better farmers sow clover, but the number very inconsiderable. Flax is sown by few of the common people in patches. Paring and burning called grassing, and burning is practised by the common farmers, upon such estates as their landlords will permit. They manure with sea-sand for corn, and sea-weed for potatoes; they will carry them three miles from the sea: all make composts of sand and earth. Dairies are numerous, from twenty to fifty cows set at 3l. a cow. The dairyman has his privilege, which is an acre of land for every ten cows, a good house and dairy; a collop for every 10 cows, and will keep 8 or 10 pigs. If not paid in money, it is one cwt. of butter and 12s. in money. A cow that gives two gallons a day the dairyman cannot reject: it will take three acres to a cow, but privilege and all four acres. Very few flocks in this country; Mr. Robert Fitzgerald has 1000 to 1500: but the number too few to be worth mentioning. The poor people all keep a collop or two of sheep, with which they cloath themselves. They plough generally with four horses, sow with two, and use ploughs of so bad a construction, that a man attends them with a strong stick leaning on the beam to keep the share in the ground.

244 CASTLE MARTYR.

LAND sells at twenty-five years purchase. Rents have not fallen; for very little of it is let at more than its value. Tythes are every where valued by the proctor by the acre. No emigrations from the county of Corke. The religion is almost universally catholic. Building a common cabbin 5l. two of stone, &c. for 31l. 10s. They carry half a barrel of sea-land on horseback, fourteen miles from Corke to the mountains of Barrymore, and to Mr. Coppinger's, twenty-four miles, and it improves much for tillage: but it is carried, when not to mountains, in cars; yet is not found to be so good as lime.

THERE is a woollen trade at Castle Martyr: Mr. James Pratt, in particular, buys wool in Tipperary and at Ballynasloe. The best is the Connaught; it is the finest, and is short; the longest is in the county of Carlow and Tipperary. In Carlow they keep the sheep fattening a year longer, after buying in Tipperary. Tipperary wool 5 lb. Carlow 6 lb. Connaught $4\frac{1}{2}$ lb. per fleece. In sorting, the fine belly wool is separated, the finer will make cloth of 10s. or 12s. a yard. The back and sides are laid by for combing, the other is carded; about four-fifths of the fleece is combed. Combs in his own house, employing 16 to 20 hands; pays them by the ball, 3d. each of 24 oz. and they earn 8s. a week; these balls are given out to the poor people to spin, employing above a thousand spinners. They spin a ball from 11 to 13 skain in four days, attending their family besides. The value is 2s. 8d. per ball: are paid 9d. a ball. In this way of doing it there are not many tricks, being in general very honest. For 11 skains, 8d.—12—9d.—13—10d.—14—11d. They are sorted and packed in packs of 180 balls, which
fell

tell at 30l. a pack. It was never known to be higher than last year; twenty years ago it was 25l. a pack. About a fourth of what is spun in this part of the kingdom, is worked up at home. The trade has been a rising one for two years.

EDWARD ROCHE, Esq; of Kildining, gave me, at Castle Martyr, the following account of some improvements he has made. He has done 250 acres of mountain, and began upon 50 of bog; the former with paring and burning with ploughs, at 7s. and cutting and burning, 5s. 6d. in june and july. Limes with the ashes, 50 barrels per acre, at 5d. Spreads the ashes, and ploughs in april or may; then lets to poor people, at 30s. an acre. They trench in potatoes in the common way, and get on an average sixty barrels; then trench in rye or black oats, by six men to an acre; the crops six barrels of rye, 20 stone per barrel, at 7s. or 8s. and black oats, 10 kilderkins, at 11 stone; then white oats, 8 barrels, and sows grass seeds one barrel, 8 lb. white clover, and 2 lb. rib-grass. The land before not 6d. an acre, could let it now at 7s. Ploughs at first with six bullocks, afterwards with four. Potatoe-stalks he carries to his pound, but in general they are left in heaps in the field, and are a nuisance in ploughing.

FROM Castle Martyr, september 20, to Castle Mary, the seat of — Longfield, Esq; who keeps a great quantity of land in his hands. Has cultivated the potatoes called bulls, that is, the English *cluster*, for cattle, but nobody will eat them; he has from six to eleven acres yearly: plants them in the common manner, and gets 120 barrels an acre, of 20 stone each. I saw a spade of five feet and a half square,

square, dug the produce 23 lb. on very poor land. On sand and sea-weed the same space of London ladies, weighed 27 lb. Manures for them with sea-sand and weed, but not with dung; gives them to his horses and bullocks: and when he gives his horses potatoes, they have no oats. It is surprizing to see how fond horses are of them; they do very well on them raw, but the best way is to boil them, as they will then fatten the horses. The bullocks are equally fond of them, and will follow him to eat them out of his hand. Sheep are the same, getting into the fields to scrape them up: upon the whole, Mr. Longfield is persuaded that no root or crop in the world is more beneficial to a farmer than this potatoe, so that he should have continued in turnips, which he has cultivated largely, but has found this root so perfectly useful, that he has experienced the absolute dependence which may be placed on them for winter provision of all sorts. And what is of infinite consequence, the culture may be extended to what quantity you please, without the assistance of dung, without which other potatoes cannot be had.

MR. Longfield established the linen manufacture here three years ago, by building a bleach mill and bleach green; he has 14 looms constantly at work upon his own account, who are paid for what they manufacture by the yard. The sort generally made is from 900 to 1400, and makes 650 pieces of 25 yards length, annually; sells, at present, from 23s. to 30s. a piece. The factory employs 50 hands; bleaches great quantities for the poor people. A great many weavers are scattered about the country, who bring their webs, &c. to be bleached here. The flax is raised, and the yarn spun at Cloghnikeety, Rofs,

Ross, &c. in the west of the county. No woollen manufacture is carried on in this country. Mr. Longfield has always ploughed with oxen, which he has found far more advantageous than horses. Clover he has cultivated long with very great success, and finds it highly beneficial. The county of Corke two-thirds waste, at a very low or no rate, the other third at 15s.

SEPTEMBER 21st to Rostellan, the seat of Lord Inchiquin, commanding a beautiful view of Corke harbour, the ships at Cove; the great island, and the two others which guard the opening of the harbour. It appears here a noble basin of several miles extent, surrounded with high grounds, which want no addition but woods. This view is seen in great perfection from the windows of two very good rooms, 25 by 35, which his Lordship has built in addition to the old castle.

FROM Rostellan to Lota, the seat of Frederick Rogers, Esq; I had before seen it in the highest perfection from the water going from Dunkettle to Cove, and from the grounds of Dunkettle. Mrs. Rogers was so obliging as to shew me the back grounds, which are admirably wooded, and of a fine varied surface.

Got to Corke in the evening, and waited on the Dean, who received me with the most flattering attention. Corke is one of the most populous places I have ever been in; it was market-day, and I could scarce drive through the streets, they were so amazingly thronged: the number is very great at all times. I should suppose it must resemble a Dutch town, for there are many canals in the streets, with

quays before the houses. The best part is Morison's Island, which promises well; the old part of the town is very close and dirty. As to its commerce, the following particulars I owe to Robert Gordon, Esq; the surveyor-general.

Average of nineteen years export, ending march 24, 1773.

	£.
Hides, at 1l. each	64,000
Bay and woollen yarn	204,000
Butter, at 30s. per cwt. from 56s. to 72s.	180,000
Beef, at 20s. a barrel	291,970
Camblets, serges, &c.	40,000
Candles	24,220
Soap	20,000
Tallow	20,000
Herrings, 18 to 35,000l. all their own	21,000
Glue, 20 to 25,000	22,000
Pork	64,000
Wool to England	14,000
Small exports, Gottenburgh herrings, horns, hoofs, &c. feather-beds, palliasses, feathers, &c.	35,000
	<hr/>
	1,100,190
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Average prices of the 19 years on the custom books. All exports on those books are rated at the value of the reign of Charles the Second; but the imports have always 10 per cent. on the sworn price added to them. Seventy to eighty sail of ships belong to Corke. Average of ships that entered that port in those 19 years, 872 per annum. The number of people at Corke, upon an average of three calculations,

tions, as mustered by the clergy, by the hearth-money, and by the number of houses, 67,000 souls; if taken before the 1st of September, after that 20,000 increased. There are 700 coopers in the town. The barrels are of oak or beech, all from America: the latter for herrings, now from Gottenburgh and Norway. The excise of Corke now no more than in Charles the Second's Reign. Ridiculous!

Corke old duties, in 1751, produced	£. 62,000
Now the same	140,000

Bullocks 16,000 head, 32,000 barrels; 41,000 hogs, 20,000 barrels. Butter 22,000 firkins of half a hundred weight each; all these are the increase this year, the whole being

240,000 firkins of butter	
120,000 barrels beef.	

Export of woollen yarn from Cork, 300,000l. a year in the Irish market. No wool smuggled, or at least very little. The wool comes to Corke, &c. and is delivered out to combers, who make it into balls. These balls are bought up by the French agents at a vast price, and exported; but even this does not amount to 40,000l. a year.

PRICES.

BEER, 21s. per cwt. never so high by 2s. 6d.
 Pork, 30s. owing to the army demand, never higher than 18s. 6d. Slaughter dung 8d. for a horse-load.
 Country labourer 6d. about the town 10d. Milk 7 pints

7 pints a penny. Coals 3s. 8d. to 5s. a barrel, 6 of which make a ton. Eggs 4 a penny.

CORKE labourers. Cellar ones 20,000; have 1s. 1d. a day, and as much bread, beef, and beer, as they can eat and drink, and 7 lb. of offals a week for their families. Rent for their house, 40s. Mason and carpenters labourers 10d. a day. Sailors, now, 3l. a month and ship provisions: before the American war, 28s. Porters and coal-heavers paid by the great. State of the poor people in general incomparably better than they were 20 years ago. There are imported 18,000 barrels annually of Scotch herrings, at 18s. a barrel. The salt for the beef trade comes from Lisbon, St. Ube's, &c. The salt for the fish trade from Rochelle: for butter English and Irish.

PARTICULARS of the woollen fabricks of the county of Corke received from a manufacturer. The woollen trade, serges and camblets, ratteens, frizes, druggets, and narrow cloths, the last they make to 10s. and 12s. a yard; if they might export to 8s. they are very clear that they could get a great trade for the woollen manufactures of Corke; the wool comes from Galway and Roscommon, combed here by combers, who earn 8s. to 10s. a week, into balls of 24 ounces, which is spun into worsteds, of twelve skains to the ball, and exported to Yarmouth for Norwich; the export price, 30l. to 33l. a pack, never before so high; average of them 26l. to 30l. Some they work up at home into serges, stuffs, and camblets; the serges at 12d. a yard, 34 inches wide; the stuffs sixteen inches, at 18d. the camblets at nine-pence halfpenny to thirteen pence. The spinners at nine-pence a ball, do one in a week; or a ball

ball and half, which is twelve-pence a week, and attend the family besides; this is done most in Waterford and Kerry, particularly near Killarny; the weavers earn 1s. a day on an average. Full three-fourths of the wool is exported in yarn, and only one-fourth worth worked up. Half the wool of Ireland is combed in the county of Corke.

THERE is a very great manufacture of ratteens at Carrick-on-sure; the bay worsted is for serges, shalloons, &c. Woollen yarn for coarse cloths, which latter have been lost for some years, owing to the high price of wool. The bay export has declined since 1770, which declension is owing to the high price of wool.

No wool smuggled, not even from Kerry, not a sloop's cargo in twenty years, the price too high; the declension has been considerable. For every 86 packs of yarn that are exported, a licence from the Lord Lieutenant must be had, for which 20l. is paid.

ON account of the act of the last sessions of Great Britain for exporting woollen goods for the troops in the pay of Ireland, Mr. Abraham Lane, of Corke, established a new manufacture of army cloathing for that purpose, which is the first at Corke, and pays 40l. a week in labour only. Upon the whole there has been no increase of woollen manufacture within 20 years. He is clearly of opinion that many fabrics might be worked up here much cheaper than in France, cloths that the French have beat the English out of; these are, particularly, broad-cloths of one yard and half-yard wide, from 3s. to 6s. 6d. a yard for the Levant trade. Frizes which is now sup-

plied from Carcassone in Languedoc. Frizes of 24 to 27 inches, at 10d. to 13d. a yard. Flannels, 27 to 36, from 7d. to 14d. Serges of 27 to 36 inches, at 7d. to 12d. a yard; these would work up the coarse wool. At Ballynalloe fair, in july, 200,000l. a year bought in wool. There is a manufactory of knit stockings by the common women about Corke, for eight or ten miles around; the yarn from 12d. to 18d. a pair, and the worsted, from 16d. to 20d. they earn from 12d. to 18d. a week. Besides ther own consumption, great quantities are sent to the north of Ireland,

ALL the weavers in the country are confined to towns, have no land, but small gardens. Bandle or narrow linen, for home consumption, is made in the western part of the county. Generally speaking, the circumstances of all the manufacturing poor are better than they were twenty years ago. The manufactures have not declined, though the exportation has, owing to the increased home consumptions. Bandon was once the seat of the stuff, camblet, and shag manufacture, but has in seven years declined above three-fourths. Have changed it for the manufacture of coarse green linens, for the London market, from 6d. to 9d. a yard, 27 inches wide; but the number of manufacturers in general much lessened.

SEPTEMBER 22d, left Corke, and proceeded to Coolmore, the seat of the Rev. Archdeacon Oliver, who is the capital farmer of all this neighbourhood; no person could be more desirous of procuring me the information I wished, nor any more able to give it me. Mr. Oliver began the culture of turnips four years ago, and found them so profitable, that he has
every

every year had a field in the broad-cast method, and well hoed. This year they are exceedingly fine, clean, and well hoed, so that they would be no disgrace to a Norfolk farmer. This is the great object wanting in Irish tillage; a gentleman, therefore, who makes so considerable a progress in it, acts in a manner the most deserving praise that the whole circle of his husbandry will admit. Mr. Oliver has usually drawn his crops for sheep and black cattle; for the former he has spread them upon grass fields to their very great improvement; and the cattle have had them given in stalls. All sorts have done perfectly well, inasmuch that he is fully convinced of their great importance: he has found that they support the cattle much better than any thing else, to such a degree of superiority, he is determined never to be without a crop. Has always dunged for them, except when he has ploughed up a grass lay, then not necessary.

In bringing in furzy waste land he has improved very extensively. One instance in particular I shall mention, because it is the best preparation for laying land to grass that I have met with in Ireland: he first dug it and put in potatoes, no manure: the crop middling; after that cleared it of stones, which were in great numbers, and sowed turnips, of which crop the following are the particulars.

"In november 1771, the Rev. Archdeacon John Oliver (at his residence in the county of Corke) began to cultivate a field for turnips and cabbages; the field contained about 40 English acres, but was so full of rocks that only about ten or eleven plantation acres could be tilled, the remainder being a lime-stone

quarry; the surface in the part tilled, in general, not above four inches deep, and in the deepest part not above twelve inches over the lime-stone quarry; this ground was planted with potatoes the spring preceding, without any manure, and all done with the spade, and in many parts there was not sufficient covering for them. The ploughing for turnips and cabbages was finished the latter end of december; it remained in that state till the month of march following (1772), when a large quantity of stones were taken out with crows and spades; it was then ploughed a second time; then harrowed with very strong harrows made on purpose; about the latter end of may it was rolled with a wooden roller; on the 11th, 12th, and 13th of june, it was sowed with about one pound and a quarter of seeds to the English acre. When the turnips were in four leaves there appeared more fern and potatoes than turnips, which were weeded out by hand, at a great expence; and in about three weeks after, when the turnips began to bottom, they got a second weeding as before, after which they were again thinned by hand; these different operations were continued till the turnips were about a pound weight, and then they were thinned again, and weeded as often as there was occasion, and now it is imagined they are as great a crop as any in the kingdom, some thousands weighing fourteen pounds per turnip. Part of the same field is sowed in drills, thinned and weeded as the other, but they are not equal to the broad cast, but are a very good crop. Another part of the same field is planted with 20,300 cabbages of different kinds, namely, the flat Dutch, borecole, large late Dutch cabbage, turnip cabbage, and large Scotch cabbage, at three feet between each drill, and two feet in the rows, which is

at

at least one foot too near in the drills, and half a foot in the rows, as they now touch one another this 13th of october. All the said cabbages and turnips were cultivated with the plough, and the cabbages hoed with the garden hoes, and manured mostly with rotten dung; part with horse-dung, not half rotten from the stable, part with cow-dung not rotten; part with sea-slob and lime mixed; all which manures answer very well. One small part of the field where the cabbages were planted, was broke from the lay last march, got six ploughings and five harrowings; another part four ploughings and three harrowings.

A. R. P.

The quantity of ground under turnips is	8	1	10
under cabbages	2	1	10

THE turnip ground got no manure of any kind, nor was it burned.

THE foregoing improvements were conducted under the immediate care and management of

MAURICE MURRAY."

AFTER these turnips he sowed barley, and with the barley, grass seeds; before this improvement the land was worth 10s. an acre, but after it would let for 25s. the grass having succeeded perfectly. Cabbages Mr. Oliver has also cultivated these four years, and with success, but does not find, upon the whole, they succeed so well as turnips, except Reynold's turnip-rooted cabbage, which is of very great use late in the spring, after other sorts are gone. Beans Mr. Oliver has also tried in small quantities, and seem to do pretty well; I saw his crop this year drilled and well managed, and a good produce, enough to give him the expectation of their being an
advan-

advantageous article. Lucerne he has also tried, but found the trouble of keeping it clean too great to answer the cultivation. Upon manures he has tried an experiment, which promises to be of considerable consequence; upon some land he took in from a creek of Corke harbour, under the slob or sea ooze he dug some very fine blue marle; this he tried for potatoes against dung; the crops to appearance very equal, but upon measuring a *spade* of each, the part marled yielded 14lb, but that dunged only 7½lb, but the dunging was not a considerable one. It is an object of prodigious consequence to be able to get potatoes at all with marle. In the cultivation of this root Mr. Oliver has introduced the mode of planting them in drills, two feet and a half asunder, with the plough, and found that the saving of labour is exceedingly great, but that the difference of crop is rather in favour of the common method; an acre of which yielded 1005 weights, the drilled 822, but saving in the seed of the drilled 60 weights, each weight 2½lb.

MR. OLIVER has just taken a farm of 400 acres of land, waste or exhausted by the preceding tenant by incessant crops of corn; this land was rented at 6s. 6d. an acre, but Mr. Oliver has tried it at 15s. and is at present engaged in making very great improvements on it; draining the wet parts, grubbing furze, fallowing, liming, inclosing, and building offices, doing the whole in the most perfect manner, and will soon make the farm carry an appearance very different from what it ever did before. His fallows for wheat had been well and often ploughed, and of a countenance very different from any lands in the neighbourhood,

A YEAR

A YEAR after the date of this journey, having the pleasure of being again with this excellent improver, I had a farther opportunity of becoming better acquainted with his management. I had also gone over an improvement of his at Duntreleague, near Mitchellstown, where he advanced 300 acres of mountain from 50l. or 60l. a year to 300l. a year, having hired it on a lease for ever; he divided the whole into fields of a proper size by well-made ditches, doubly planted with quick and rows of trees; the lands were improved with lime, laid down to grass, and let to tenants who pay their rents well; but Mr. Oliver residing at a distance, the trees were very much damaged and hurt by the tenants cattle. To all appearance this improvement was as completely finished as any in Ireland, and the great profit arising from the undertaking induced the archdeacon to attempt his new one I mentioned above. In that I found a very great progress made; besides an excellent barn of stone and slate, there was a steward's house, stables, &c. and a good farm-yard, walled in; and it was with particular pleasure I saw (it was in winter) a large number of cows and young cattle very well littered in it with straw, and feeding on turnips, a thick layer of sea-sand having been spread all over it. The improvement and cultivation of the farm went on apace, especially the liming; the kiln had been burning a twelvemonth, in which time the expence had been as follows:

	£.	s.	d.
264 barrells of culm, at 4s. -	73	0	0
The quarry is 1½ mile English from the kiln; two horses and two men drawing stone, at 18s. a week -	46	16	0
Carried over -	119	16	0
Brought			

	£.	s.	d.
Brought forward	119	16	0
Two men quarrying, 5s. a week to one,			
and 3s. a week to the other	20	16	0
Breaking and burning, 8s. a week	20	16	0
Gunpowder, 1s. a month	0	12	0
24 waggon-load of coal cinders, bought			
at Corke, at 10s.	12	0	0
One horse and man carries out 24 barrels			
a day, at 1s. 6d. 242 days	18	1	0
Total	192	1	0

THE quantity of lime drawn from february 1777 to february 1778 was 5824 barrels, the expence therefore just 8d. a barrel. One Corke barrel of culm, at 4s. used every day, and half a barrel of ashes: the kiln draws 18 barrels a day, 16 for one of culm, and 10 for one including cinders. This barrel of culm is six bushels heaped. Mr. Oliver had an old memorandum, that the price of fuel was 3½d. per barrel of lime. Twelve tons of lime-stone produce 50 barrels of roach lime. Nor does the archdeacon trust to lime alone; he buys great quantities of dung and soap ashes in Corke. At the same time I viewed his turnip crops on his home farm, and found them excellent, and many oxen tied in stalls fattening on them, a practice he finds exceedingly profitable; when other graziers sell their bullocks with difficulty, he puts his to turnips, and doubles and trebles their value. In 1777 he had 23 acres of turnips. Before I conclude this account of his spirited exertions, I must add, that very few improvers in Ireland have gone through more extensive operations,

I have

I have not found one more attentive or more practical, and, upon the whole, scarcely any that come near to him.

LAND about Coolmore lets from 8s. to 20s. The soil limestone. Farms rise from 50l. to 300l. The courses are,

1. Potatoes, yield 50 barrels. 2. Wheat, 3 barrels: add sometimes, 3. Oats. 4. Lay out for grass.

THE poor people have most of them land with their cabbins, from four to six acres, which they sow with potatoes and wheat. Not many of them keep cows, but a few sorry sheep for milk; they generally have milk, either of their own, or bought, in summer, and in winter they have herrings; but live, upon the whole, worse than in many other parts of the kingdom. The price of labour 6d. a day, in harvest 8d. Rent of a cabin 20s. Many dairies here, which are generally let at four pounds a cow, some four guineas, and near Corke, five pounds.

THE manures are lime, at 1s. 4d. a barrel roach; if burned by themselves, 8d. to 10d. lay 30 to 50 barrels per acre. Sea sand is used, 60 to 80 bags, each five pecks, to the acre. Corke dung costs 6d. to 1s. a car load; it is all bought up very carefully; 10l. a year is paid for the cleaning of one street; this argues a very spirited husbandry.

RODE to the mouth of Corke harbour; the grounds about it are all fine, bold, and varied, but so bare of trees, that there is not a single view but what pains one

one in the want of wood. Rents of the tract, south of the river Caragoline, from 5s. to 30s. average 10s. Not one man in five has a cow, but generally from one to four acres, upon which they have potatoes, and five or six sheep, which they milk, and spin their wool. Labour 5d. in winter, 6d. in summer; many of them for three months in the year live on potatoes and water, the rest of it they have a good deal of fish. But it is remarked, at Kinsale, that when sprats are most plentiful, diseases are most common. Rent for a mere cabin, 10s. Much paring and burning; paring 28 men a day, sow wheat on it, and then potatoes; get great crops. The soil a sharp stoney land; no lime-stone south of the above river. Manure for potatoes, with sea weed, for 26s. which gives good crops, but lasts only one year. Sea sand much used; but no shells in it. Farms rise to two or three hundred acres, but are hired in partnership.

BEFORE I quit the environs of Corke, I must remark, that the country on the harbour, I think preferable, in many respects for a residence, to any thing I have seen in Ireland. *First*, it is the most southerly part of the kingdom. *Second*, there are very great beauties of prospect. *Third*, by much the most animated, busy scene of shipping in all Ireland, and consequently, *Fourth*, a ready price for every product. *Fifth*, great plenty of excellent fish and wild fowl. *Sixth*, the neighbourhood of a great city for objects of convenience.

SEPTEMBER 24th, took my leave of Mr. Oliver; I purposed going from hence to Bandon, in the way
to

to Carbury, and so to Killarney, by Bantry and Nedeem, and with this view had got letters of recommendation to several gentlemen in that country; but hearing that the Priests Leap between Bantry and Nedeem was utterly impassable, the road not being finished, which is making by subscription; I changed my route, and took the Macroom road. Dined with Col. Ayres, who informed me that the agriculture of that neighbourhood was very indifferent, and little worth noting, except the use of lime as a manure, which is practised with great success. From his house I took the Nedeem road.

PASSED Brockham, the place where Cornelius Townshend, Esq; eight years ago fixed two Sussex farmers, to improve a stoney mountain. I saw the land, and some of the buildings, and having heard several accounts of the transaction from friends to the farmers, which accounts had been received from them, I wished to have Mr. Townshend's; and with that view called at his house, but unfortunately he was not at home; as I missed him, I shall only mention the affair in the light it appeared to me from the particulars I received from different hands.

MR. TOWNSHEND wishing to improve his estate, a considerable part of which consisted of mountain, but surprizingly full of rocks and stones; he engaged two Sussex farmers, (Messrs. Crampe and Johnson) to come over to Ireland, to view the lands in question: they both came, examined the land, and hired a tract for some time at no rent, or a very small one, and after that at a rent named and agreed to. The men returned, settled their affairs in England,

land, bought very fine horses, and embarking all their stock, implements, &c. came over, under circumstances of great, but useless expence. When they got to the land, houses and offices were built for them, in a most complete stile, and among others, a barn 100 feet long, and 37 broad, an exceedingly ill-judged expence, the result of bringing merely English (perhaps mistaken ideas) into the climate of Ireland.

THESE buildings being executing at the landlord's expence, but the tenants drawing the materials, they began the improvement; and found the land so excessively stoney, that the expence of clearing was too great to be within a possibility of answering. One field of eight acres cost 100l. in clearing; walls were built 10 feet thick, with stones that arose in clearing the land. The undertaking went on for four years, but was then concluded in the way one might have expected. The men were ruined, and Mr. Townshend suffered considerably by the expences of the undertaking, rising infinitely beyond what he had ever thought they could amount to.

HAD Mr. Townshend met with farmers of sufficient knowledge in their profession, they would not probably have fixed on this spot at all; certainly when they found to what excess it abounded with stones, they would have persuaded him either to give them other land, or have hired a more favourable soil of some other landlord: at all events to persist in improving a spot, the improvement of which could never be repaid, whether it was upon their own, or their landlord's account, was equally inexcusable in point

point of prudence, and the sure way to bring discredit on the undertaking, and ridicule on what falsely acquired the name of *English husbandry*. Planting is the only proper improvement for land abounding to such excess with rocks.

FROM hence I reached Sir John Coulthurst's, at Knightsbridge, who has a very extensive estate here, 7000 acres of which are mountain and bog. I was unfortunate in not having seen Sir John's seat, near Corke, for there he is at work upon 1000 acres of mountain, and making very great improvements, in which, among other circumstances, he works his bullocks by the horns.

SEPTEMBER 25th, took the road to Nedeem, through the wildest region of mountains that I remember to have seen; it is a dreary, but an interesting road. The various horrid, grotesque and unusual forms, in which the mountains rise, and the rocks bulge; the immense height of some distant heads, which rear above all the nearer scenes, the torrents roaring in the vales, and breaking down the mountain sides, with here and there a wretched cabin, and a spot of culture yielding surprize to find human beings the inhabitants of such a scene of wildness, altogether keep the traveller's mind in an agitation and suspense. These rocks and mountains are many of them no otherwise improvable than by planting, for which, however, they are exceedingly well adapted.

SIR JOHN was so obliging as to send half a dozen labourers with me, to help my chaise up a mountain side, of which he gave a formidable account: in

truth it deserved it. The road leads directly against a mountain ridge, and those who made it were so incredibly stupid, that they kept the strait line up the hill, instead of turning aside to the right, to wind around a projection of it. The path of the road is worn by torrents into a channel, which is blocked up in places by huge fragments, so that it would be a horrid road on a level; but on a hill so steep, that the best path would be difficult to ascend, it may be supposed terrible: the labourers, two passing strangers, and my servant, could with difficulty get the chaise up. It is much to be regretted that the direction of the road is not changed, as all the rest from Corke to Nedeem is good enough. For a few miles towards the latter place the country is flat on the river Kenmare, much of it good, and under grafs or corn. Passed Mr. Orpine's at Ardtilly, and another of the same name at Killowen.

NEDEEN is a little town, very well situated on the noble river Kenmare, where ships of 150 tons may come up; there are but three or four good houses. Lord Shelburne, to whom the place belongs, has built one for his agent. There is a vale of good land, which is here from a mile and a half to a mile broad; and to the north and south, great ridges of mountains said to be full of mines.

AT Nedeem, Lord Shelburne had taken care to have me well informed by his people in that country, which belongs for the greatest part to himself, he has above 150,000 Irish acres in Kerry; the greatest part of the barony of Glanrought belongs to him, most of Dunkerron and Ivragh. The country is all a region of mountains, inclosed by a vale of flat land on the river;

river; the mountains to the south come to the water's edge, with but few variations, the principal of which is Ardee, a farm of Lord Shelburne's: to the north of the river, the flat land is one-half to three quarters of a mile broad. The mountains to the south reach to Bear-haven, and those to the north to Dinglebay; the soil is extremely various; to the south of the river all are sand stones, and the hills loam, stone, gravel, and bog. To the north there is a slip of limestone land, from Kilgarvon to Cabbina-cush, that is six miles east of Nedeem, and three to the west, but is not more than a quarter of a mile broad; the rest, including the mountains, all sand stone. As to its rents, it is very difficult to tell what they are; for land is let by the plough land and gineve, 12 gineves to the plough land; but the latter denomination is not of any particular quantity: for no 2 plough lands are the same. The size of farms is various, from 40 acres to 1000, less quantities go with cabbins, and some farms are taken by labourers in partnership. Their tillage consists of potatoes measured by the peck of 84 lb. manure for them with sea weed, three boat loads to an acre; each at 16s. 3d. the poor people use nothing else: but those who can afford it, lay dung with it. These potatoes are the first crop. Thirty pecks plant an acre, and it takes from twenty to thirty men to set an acre in a day.

1. Potatoes. 2. Potatoes. 3. Oats or barley, good crops. 4. Lay it out for what comes, and in the first season the finest grasses appear.

SOME wheat is sown, but not generally by the poor people. Oats are the common crop. This is the short history of their arable management. There are

some dairies, from 12 to 24 cows in each, and are let at 50s. or one cwt. of butter, and 12s. horn money, the dairymen's privilege is two collops to 20 cows, a cabbin, and three acres of land. The butter is all carried to Corke on horses backs. Three years ago 40s. a cow was the highest. The common stock of the mountains are young cattle, bred by the poor people; but the large farmers go generally to Limerick for yearlings, turn them on the mountains, where they are kept till three years old, when they sell them at Nedeen or Killarney, engaging them to be with calf. Buy at 40s. this year, but used to be from 20s. to 30s. formerly sold at 50s. now at 3l. The poor people's heifers sell at three years old, at 30s. their breed is the little mountain, or Kerry cow, which upon good land gives a great deal of milk. I have remarked, as I travelled through the country, much of the Alderney breed in some of them. The winter food, which the farmers provide, is to keep bottom lands through the summer, which they call a nursery, to which they bring their cattle down from the mountains when the weather becomes severe. There are great numbers of swine, and many reared on the mountains by the Tormentil root, (*tormentilla erecta*) which abounds there, and from which they will come down good pork. There are few sheep kept, not sufficient to cloath the poor people, who, however, work up what there is into frize. Lambs sell from 2s. 2d. to 3s. at four months old. Three year old wethers, fat, from 5s. to 8s. weight about 9 lb. a quarter, and are admirable mutton. A ewe's fleece, one pound and a half to two pound and a half. A lamb's, one pound. A three year old wether, two pound and a half. They have some cows, which are fattened in the vales; and also some on the moun-

mountains, weighing 2 cwt. and two and a quarter. Many goats are kept on the mountains, especially by the poor people, to whom they are a very great support; for upon the mountains the milk of a goat is equal to that of a cow; and some of the kids are killed for meat.

UPON asking whether they ploughed with horses or oxen, I was told there was not a plough in the whole parish of Tooavista, which is 12 miles long by 7 broad. All the tillage is by the Irish loy; ten men dig an acre a day that has been stirred before. It will take forty men to put in an acre of potatoes in a day. Rents have fallen greatly in most parts of Kerry. Tythes in 1770 and in 1771 were taken in kind, owing to their having been pushed up to too great a height; since 1771 they have been lowered; the proctor every year values the tythe of the whole farm. Leases are, some for ever, others 31 years, and some 21. The rent of a cabin, without land, 6s. with an acre of land, 11. 2s. 9d. The grass for a cow is 40s. on the mountains from 1s. 6d. to 2s. 6d. a quarter. They have generally about five acres. They all keep a cow or two. All on the mountains have goats. Swine also are universal among them. The labour of the farms is generally carried on by cottars, to whom the farmer assigns a cabin, and a garden, and the running of two collops on the mountain, for which he pays a rent; he is bound to work with his master for 3d. a day and two meals. Their food in summer potatoes and milk; but in spring they have only potatoes and water. Sometimes they have herrings and sprats. They never eat salmon. The religion is in general Roman Catholic.

LIME, 1s. a barrel, but may be burnt for 8d. Fuel, all turf, 13d. a flane, each flane four feet long, by two feet broad. Price of building a cabbin, with stone and slate in lime mortar, 20l.

THERE has been a considerable fishery upon the coast of Kerry, particularly in the Kenmare, at Ballenskillings in Iveragh, in the river Valentia, in Bear-haven, in Castlemain-bay, in Dingle-bay, &c. Last year, that in the Kenmare river was the most considerable: it employed twelve boats. This year none at all; the chief in Ballenskillings and the river Valentia. None in Kenmare for several years before: but great abundance of sprats for three years. Salmon is constant; they export about five tons, salted. The herrings chiefly for home consumption, salted and fresh. The herring boats are of two tons, 14 foot keel, cost building 3l. 3s. five men go in each: they are built here of bog deal. A string of three nets costs 3l. the poor go shares in the fishery; build or hire the boat, and join for the nets, which are made of hemp bought at Corke, and spun and made here: they tan them with bark. There are many more men would go out if they had boats, but it is a very uncertain fishery. Many persons have put themselves to considerable expence about it, but without success, except thirty-three years ago, when the pilchards came in, and have never been here since.

KILLARNEY is the principal market for wheat, which is twelve miles distant. A sloop constantly employed upon the river Kenmare, in bringing salt, and carrying lime-stone, or whatever was wanted, would be a great improvement.

LORD

LORD SHELBURNE has a plan for improving Nedeen, to which he has given the name of Kenmare, from his friend the nobleman, with that title, which, when executed, must be of considerable importance. It is to build ten cabbins, and annex ten acres to each cabin, rent free for twenty-one years; also to form twenty aced allotments for the parks to the town of Nedeen, with design to encourage settlements in it, for which 330 acres are kept in hand. The situation is advantageous, and ships of 150 tons can come up to it, with a very good landing-place. He has also fixed some English farmers here.

RELATIVE to the improvement of the wild regions within sight of the house I was in, I asked, *Suppose five acres of those mountains to be cleared of stones, a stone cabin built, at 7l. expence, and a wall raised round the whole, and to be let at a reasonable rent, would a tenant be found? "That moment." Suppose six of them, or twelve? "You would have tenants for all, if there were an hundred."*

IN the parish of Tooavista, they have a way of taking land by the ounce, in the arable part, which joins the sea. An ounce is the sixteenth of a gineve, and is sufficient for a potatoe garden, and they pay a guinea for it.

THE climate in these parts of Kerry is so mild, that potatoes are left by the poor people in the ground the whole winter through; but last winter almost ruined them, their crop being destroyed.

SEPTEMBER 26th, left Nedeen, and rising the mountainous region, towards Killarney, came to a tract of mountain-bog, one of the most improveable I

have any where seen. It hangs to the south, and might be drained with the utmost ease. It yields a coarse grass, and has nothing in it to stop a plough. Lord Shelburne's agent, Mr. Wray, told me, that there are vast tracts of such in the barony of Iveragh. There is common gravel on the spot, and lime-stone in plenty, within half a mile of Nedeen.

I soon entered the wildest and most romantic country I had any where seen; a region of steep rocks and mountains, which continued for nine or ten miles, till I came in view of Mucruss. There is something magnificently wild in this stupendous scenery, formed to impress the mind with a species of terror. All this tract has a rude and savage air, but parts of it are strikingly interesting; the mountains are bare and rocky, and of a great magnitude; the vales are rocky glens, where a mountain-stream tumbles along the roughest bed imaginable, and receives many torrents, pouring from clefts, half overhung with shrubby wood; some of these streams are seen, and the roar of others heard, but hid by vast masses of rock. Immense fragments, torn from the precipices, by storms and torrents, are tumbled about in the wildest confusion, and seemed to hang rather than rest upon projecting precipices. Upon some of these fragments of rock, perfectly detached from the soil, except by the side on which they lie, are beds of black turf, with luxuriant crops of heath, &c. which appeared very curious to me, having no where seen the like; and I observed very high in the mountains, much higher than any cultivation is at present, on the right hand, flat and cleared spaces of good grass among the ridges of rock, which had probably been cultivated, and proved that these mountains were not incapable from climate of being applied to useful purposes,

FROM

FROM one of these heights, I looked forward to the lake of Killarney at a considerable distance, and backward to the river Kenmare; came in view of a small part of the upper lake, spotted with several islands, and surrounded by the most tremendous mountains that can be imagined, of an aspect savage and dreadful. From this scene of wild magnificence, I broke at once upon all the glories of Killarney; from an elevated point of view I looked down on a considerable part of the lake, which gave me a specimen of what I might expect. The water you command (which, however, is only a part of the lake) appears a basin of two or three miles round; to the left it is inclosed by the mountains you have passed particularly by the Turk, whose outline is uncommonly noble, and joins a range of others, that form the most magnificent shore in the world: on the other side is a rising scenery of cultivated hills, and Lord Kenmare's park and woods; the end of the lake at your feet is formed by the root of Mangerton, on whose side the road leads. From hence I looked down on a pretty range of inclosures joining the lake, and the woods and lawns of Mucrufs, forming a large promontory of thick wood, shooting far into the lake. The most active fancy can sketch nothing in addition. Islands of wood beyond seem to join it, and reaches of the lake, breaking partly between, give the most lively intermixture of water: six or seven isles and islets form an accompaniment, some are rocky, but with a slight vegetation, others contain groups of trees, and the whole thrown into forms, which would furnish new ideas to a painter. Further is a chain of wooded islands, which also appear to join the main land, with an offspring of lesser ones scattered around.

ARRIVED

ARRIVED at Mr. Herbert's at Mucruss, to whose friendly attention I owed my succeeding pleasure. There have been so many descriptions of Killarney written by gentlemen who have resided some time there, and seen it at every season, that for a passing traveller to attempt the like, would be in vain; for this reason I shall give the mere journal of the remarks I made on the spot, in the order I viewed the lake.

SEPTEMBER 27th, walked into Mr. Herbert's beautiful grounds, to Oroch's hill, in the lawn he has cleared from that profusion of stones which lie under the wall; the scene which this point commands is delicious; the house is on the edge of the lawn, by a wood which covers the whole peninsula, fringes the slope at your feet, and forms a beautiful shore to the lake. Tomis and Glena are a vast mountainous mass of incredible magnificence, the outline soft and easy in its swells, whereas those above the Eagle's Nest are of so broken and abrupt an outline, that nothing can be imagined more savage, an aspect horrid and sublime, that gives all the impressions to be wished to astonish, rather than please the mind. The Turk exhibits noble features, and Mangerton's huge body rises above the whole. The cultivated tracts towards Killarney, form a shore in contrast to the terrific scenes I have just mentioned; the distant boundary of the lake, a vast ridge of distant blue mountains towards Dingle. From hence entered the garden, and viewed Mucruss abbey, one of the most interesting scenes I ever saw; it is the ruin of a considerable abbey, built in Henry the VIth's time, and so entire, that if it were more so, though the *building* would be more perfect, the *ruin* would be less pleasing; it is half

half obscured in the shade of some venerable ash trees; ivy has given the picturesque circumstance, which that plant alone can confer, while the broken walls and ruined turrets throw over it

The last mournful graces of decay.

Heaps of skulls and bones scattered about, with nettles, briars and weeds sprouting in tufts from the loose stones, all unite to raise those melancholy impressions, which are the merit of such scenes, and which can scarcely any where be felt more completely. The cloisters form a dismal area, in the center of which grows the most prodigious yew tree I ever beheld, in one great stem, two feet diameter, and fourteen high, from whence a vast head of branches spreads on every side, so as to form a perfect canopy to the whole space; I looked for its fit inhabitant—it is a spot where

The moping owl doth to the moon complain.

This ruin is in the true stile in which all such buildings should appear; there is not an intruding circumstance—the hand of dress has not touched it—melancholy is the impression which such scenes should kindle, and it is here raised most powerfully.

FROM the abbey we passed to the terrafs, a natural one of grafs, on the very shore of the lake; it is irregular and winding; a wall of rocks broken into fantastic forms by the waves: on the other side, a wood, consisting of all sorts of plants, which the climate can protect, and through which a variety of walks are traced. The view from this terrafs consists
of

of many parts of various characters, but in their different files complete; the lake opens a spreading sheet of water, spotted by rocks and islands, all but one or two wooded, the outlines of them are sharp and distinct; nothing can be more smiling than this scene, soft and mild, a perfect contrast of beauty to the sublimity of the mountains which form the shore: these rise in an outline so varied, and at the same time so magnificent, that nothing greater can be imagined; Tomys and Glená exhibit an immensity in point of magnitude, but from a large hanging wood on the slope, and from the smoothness of the general surface, it has nothing savage, whereas the mountains above and near the Eagle's Nest are of the most broken outlines; the declivities are bulging rocks, of immense size, which seem to impend in horrid forms over the lake, and where an opening among them is caught, others of the same rude character, rear their threatening heads. From different parts of the terrass these scenes are viewed in numberless varieties.

RETURNED to breakfast, and pursued Mr. Herbert's new road, which he has traced through the peninsula to Dynis island, three miles in length; it is carried in so judicious a manner through a great variety of ground, rocky woods, lawns, &c. that nothing can be more pleasing; it passes through a remarkable scene of rocks, which are covered with woods; from thence to the marble quarry, which Mr. Herbert is working; and where he gains variety of marbles, green, red, white, and brown, prettily veined; the quarry is a shore of rocks, which surrounds a bay of the lake, and forms a scene, consisting of but few parts, but those strongly marked; the
rocks

rocks are bold, and broken into slight caverns; they are fringed with scattered trees, and from many parts of them wood shoots in that romantic manner, so common at Killarney. Full in front Turk mountain rises with the proudest outline, in that abrupt magnificence which fills up the whole space, and closes the scene.

THE road leads by a place where copper-mines were worked; many shafts appear; as much ore was raised as sold for twenty-five thousand pounds, but the works were laid aside, more from ignorance in the workmen, than any defects in the mine.

CAME to an opening on the Great Lake, which appears to advantage here, the town of Killarney on the north-east shore. Look full on the mountain Glená, which rises in a very bold manner, the hanging woods spread half way, and are of great extent, and uncommonly beautiful. Two very pleasing scenes succeed, that to the left is a small bay, hemmed in by a neck of land in front; the immediate shore rocks, which are in a picturesque stile, and crowned entirely with arbutus, and other wood; a pretty retired scene, where a variety of objects give no fatigue to the eye. The other is an admirable mixture of the beautiful and sublime: a bare rock, of an almost regular figure, projects from a headland into the lake, which with much wood and high land, forms one side of the scene, the other is wood from a rising ground only; the lake opens between, in a sheet of no great extent, but in front is the hanging wood of Glená, which appears in full glory.

Mr.

Mr. Herbert has built a handsome gothic bridge, to unite the peninsula to the island of Brickeen, through the arch of which the waters of the north and south lake flow. It is a span of twenty-seven feet, and seventeen high, and over it the road leads to that island. From thence to Brickeen nearly finished, and it is to be thrown across a bottom into Dynis.

RETURNED by the northern path through a thick wood for some distance, and caught a very agreeable view of Ash Island, seen through an opening, inclosed on both sides with wood. Pursued the way from these grounds to Keelbeg, and viewed the bay of the Devil's Island, which is a beautiful one, inclosed by a shore, to the right of very noble rocks, in various forms, crowned in a striking manner with wood; a little rocky islet in front; to the left the water opens, and Turk mountain rises with that proud superiority which attends him in all these scenes.

THE view of the promontory of Dindog, near this place, closes this part of the lake, and is indeed singularly beautiful. It is a large rock, which shoots far into the water, of a height sufficient to be interesting, in full relief, edged with a scanty vegetation; the shore on which you stand bending to the right, as if to meet that rock, presents a circular shade of dark wood: Turk still the back ground, in a character of great sublimity, and Mangerton's loftier summit, but less interesting outline, a part of the scenery. These views, with others of less moment, are connected by a succession of lawns breaking among the wood, pleasing the eye with lively verdure, and

relieving it from the fatigue of the stupendous mountain scenes.

SEPTEMBER 28th, took boat on the lake, from the promontory of Dindog before mentioned. I had been under a million of apprehensions that I should see no more of Killarney; for it blew a furious storm all night, and in the morning the bosom of the lake heaved with agitation, exhibiting few marks but those of anger. After breakfast, it cleared up, the clouds dispersed by degrees, the waves subsided, the sun shone out in all its splendor; every scene was gay, and no ideas but pleasure possessed the breast. With these emotions sallied forth, nor did they disappoint us.

ROWED under the rocky shore of Dindog, which is romantic to a great degree. The base, by the beating of the waves, is worn into caverns, so that the heads of the rocks project considerably beyond, and hang over in a manner which makes every part of it interesting. Following the coast, open marble quarry bay, the shore great fragments of rock tumbled about in the wildest manner.

THE island of rocks against the copper-mine, a remarkable group. The shore near Casemilan is of a different nature; it is wood in some places, in unbroken masses down to the water's edge, in others divided from it by smaller tracts of rock. Come to a beautiful land-locked bay, surrounded by a woody shore, which opening in places, shews other woods more retired. Tomys is here viewed in a unity of form, which gives it an air of great magnificence. Turk was obscured by the sun shining immediately

above him, and casting a stream of burning light on the water, displayed an effect, to describe which the pencil of a Claude alone would be equal. Turn out of the bay, and gain a full view of the Eagle's Nest, the mountains above it, and Glená, they form a perfect contrast, the first are rugged, but Glená mild. Here the shore is a continued wood.

PASS the bridge, and cross to Dynis, an island Mr. Herbert has improved in the most agreeable manner, by cutting walks through it, that command a variety of views. One of these paths on the banks of the channel to the upper lake, is sketched with great taste; it is on one side walled with natural rocks, from the clefts of which shoot a thousand fine arbutus's, that hang in a rich foliage of flowers and scarlet berries; a turf bench in a delicious spot; the scene close and sequestered, just enough to give every pleasing idea annexed to retirement.

PASSING the bridge, by a rapid stream, came presently to the Eagle's Nest: having viewed this rock from places where it appears only a part of an object much greater than itself, I had conceived an idea that it did not deserve the applause given it, but upon coming near, I was much surprized; the approach is wonderfully fine, the river leads directly to its foot, and does not give the turn till immediately under, by which means the view is much more grand than it could otherwise be; it is nearly perpendicular, and rises in such full majesty, with so bold an outline, and such projecting masses in its center, that the magnificence of the object is complete. The lower part is covered with wood, and scattered trees climb almost to the top, which (if trees can be amiss in Ireland)

Ireland) rather weaken the impression raised by this noble rock; this part is a hanging wood, or an object whose character is perfect beauty; but the upper scene, the broken outline, rugged sides, and bulging masses, all are sublime, and so powerful, that sublimity is the general impression of the whole, by overpowering the idea of beauty raised by the wood. The immense height of the mountains of Killarney may be estimated by this rock, from any distant place that commands it, it appears the lowest crag of a vast chain, and of no account; but on a close approach it is found to command a very different respect.

Pass between the mountains called the Great Range, towards the upper lake. Here Turk, which has so long appeared, with a figure perfectly interesting, is become, from a different position, an unmeaning lump. The rest of the mountains, as you pass, assume a varied appearance, and are of a prodigious magnitude. The scenery in this channel is great and wild in all its features; wood is very scarce; vast rocks seem tossed in confusion through the narrow vale, which is opened among the mountains for the river to pass. Its banks are rocks in an hundred forms; the mountain sides are every where scattered with them. There is not a circumstance but is in unison with the wild grandeur of the scene.

COLEMAN'S EYE, a narrow pass, opens a different scenery. Came to a region in which the beautiful and the great are mixed without offence. The islands are mostly thickly wooded; Oak isle in particular rises on a pretty base, and is a most beautiful object: Mac Gilly Cuddy's reeks, with their broken points; Baum, with his perfect cone; the Purple

mountain, with his broad and more regular head, and Turk, having assumed a new and more interesting aspect, unite with the opposite hills, part of which have some wood left on them, to form a scene uncommonly striking. Here you look back on a very peculiar spot; it is a parcel of rocks which cross the lake, and form a gap that opens to distant water, the whole backed by Turk, in a file of the highest grandeur.

COME to Derry Currily, which is a great sweep of mountain, covered partly with wood, hanging in a very noble manner, but part cut down, much of it mangled, and the rest inhabited by coopers, boat-builders, carpenters, and turners, a sacrilegious tribe, who have turned the Dryades from their antient habitations. The cascade here is a fine one, but passed quickly from hence to scenes unmingled with pain.

Row to the cluster of the Seven Islands, a little archipelago; they rise very boldly from the water upon rocky bases, and are crowned in the most beautiful manner with wood, among which are a number of arbutus; the channels among them opening to new scenes, and the great amphitheatre of rock and mountain that surround them, unite to form a noble view.

RETURNED from the river, at the very end of the lake, which winds towards Mac Gilly Cuddy's Reeks in fanciful meanders, by a course somewhat different, through the Seven Islands, and back to the Eagle's Nest, viewing the scenes already mentioned
in

in new positions. At that noble rock fired three cannon for the echo, which indeed is prodigious; the report does not consist of direct reverberations from one rock to another with a pause between; but has an exact resemblance to a peal of thunder rattling behind the rock, as if travelling; the whole scenery we had viewed and lost in the immensity of Mac Gilly Cuddy's Reeks.

PASS near to the wood of Gleng, which here takes the appearance of one immense sweep hanging in the most beautiful manner imaginable; on the side of a vast mountain to a point, shooting into the great lake. A more glorious scene is not to be imagined. It is one deep mass of wood, composed of the richest shades perfectly dipping in the water, without rock or strand appearing, nor a break in the whole. The eye traversing the sheet of liquid silver, to meet so vast a mass of green, hanging to such an extent as to fill the imagination, admits it the most noble scene that is any where to be beheld.

TURN under the North shore of Mucrus; the lake here is one great expanse of water, bounded by the woods described, the islands of Innisfallen, Ross, &c. and the peninsula. The shore of Mucrus has a great variety; it is in some places rocky, huge masses tumbled from their base lie beneath, as in a chaos of ruin. Great caverns worn under them in strange forms: or else covered with woods of a variety of shades. Meet the point of Ardnagluggen, (in English, where the water dashes on the rocks) and come under Ornescope, a rocky headland of a most bold projection hanging many yards over its

base, with an old weather-beaten yew, growing from a little bracket of rock, from which the spot is called Ornescope, or *Yew Broom*. Mucruss gardens presently open among the woods, and relieve the eye, almost fatigued with the immense objects upon which it has so long gazed.

SEPTEMBER 29th, rode, after breakfast, to Mangerton Cascade and Drumarourk Hill, from which the view of Mucruss is uncommonly pleasing.

PASS the other hill, the view of which I described the 27th, and went to Colonel Hussy's monument, from whence the scene is different from the rest; the fore ground is a gentle hill, intersected by hedges, forming several small lawns. There are some scattered trees and houses, with Mucruss Abbey, half obscured by wood, the whole chearful, and backed by Turk. The lake is of a triangular form, Ross island and Innisfallen its limits, the woods of Mucruss and the islands take a new position.

RETURNING, took boat again towards Ross isle, and as Mucruss retires from us, nothing can be more beautiful than the spots of lawn in the terrace opening in the wood; above it, the green hills with clumps, and the whole finishing in the noble group of wood about the abbey, which here appears a deep shade, and so fine a finishing one, that not a tree should be touched. Rowed to the east point of Ross, which is well wooded, turn to the south coast. Doubling the point, the most beautiful shore of that island appears; it is the well wooded environs of a bay, except a small opening to the castle; the woods
are

are in deep shades, and rise on the regular slopes of a high range of rocky coast. The part in front of Filekilly point rises in the middle, and sinks towards each end. The woods of Tomys here appear uncommonly fine. Open Innisfallen, which is composed at this distance of various shades, within a broken outline, entirely different from the other islands. No pencil could mix a happier assemblage. Land near a miserable room, where travellers dine—Of the isle of Innisfallen, it is paying no great compliment to say, it is the most beautiful in the King's dominions, and perhaps in Europe. It contains 20 acres of land, and has every variety that the range of beauty, unmixed with the sublime, can give. The general feature is that of wood; the surface undulates into swelling hills, and sinks into little vales; the slopes are in every direction, the declivities die gently away, forming those slight inequalities which are the greatest beauty of dressed grounds. The little vallies let in views of the surrounding lake between the hills, while the swells break the regular outline of the water, and give to the whole an agreeable confusion. The wood has all the variety into which nature has thrown the surface; in some parts it is so thick as to appear impenetrable, and secludes all farther view; in others, it breaks into tufts of tall timber, under which cattle feed. Here they open, as if to offer to the spectator the view of the naked lawn; in others close, as if purposely to forbid a more prying examination. Trees of large size, and commanding figure, form in some places natural arches; the ivy mixing with the branches, and hanging across in festoons of foliage, while on one side the lake glitters among the trees, and on the

other a thick gloom dwells in the recesses of the wood. The figure of the island renders one part a beautiful object to another; for the coast being broken and indented, forms bays surrounded either by rock or wood: slight promontories shoot into the lake, whose rocky edges are crowned with wood. These are the great features of Innisfallen; the slighter touches are full of beauties easily imagined by the reader. Every circumstance of the wood, the water, the rocks, and lawn, are characteristic, and have a beauty in the assemblage from mere disposition. I must, however, observe, that this delicious retreat is not kept as one could wish.

SCENES, that are great and commanding from magnitude or wildness, should never be dressed; the *rugged*, and even the *horrible*, may add to the effect upon the mind: but in such as Innisfallen, a degree of dress, that is, cleanliness, is even necessary to beauty. I have spoken of lawn, but I should observe, that expression indicates what it ought to be, rather than what it is. It is very rich grass, poached by oxen and cows, the only inhabitants of the island. No spectator of taste but will regret the open grounds not being drained with hollow cuts; the ruggedness of the surface levelled, and the grass kept close shaven by many sheep instead of beasts. The bushes and briars where they have encroached on what ought to be lawn, cleared away; some parts of the isle more opened: in a word, no ornaments given, for the scene wants them not, but obstructions cleared, ruggedness smoothed, and the whole cleaned. This is what ought to be done; as to what might
be

be made of the island, if its noble proprietor (Lord Kenmare) had an inclination, it admits of being converted into a terrestrial paradise, lawning with the intermixture of other shrubs and wood, and a *little* dress, would make it an example of what ornamented grounds might be, but which not one in a thousand is. Take the island, however, as it is, with its few imperfections, and where are we to find such another? What a delicious retreat! An emperor could not bestow such an one as Innisfallen; with a cottage, a few cows, and a swarm of poultry, is it possible that happiness should refuse to be a guest here?

Row to Ross Castle, in order to coast that island; there is nothing peculiarly striking in it; return the same way around Innisfallen; in this little voyage the shore of Ross is one of the most beautiful of the wooded ones in the lake; it seems to unite with Innisfallen, and projects into the water in thick woods one beyond another. In the middle of the channel a large rock, and from the other shore a little promontory of a few scattered trees; the whole scene pleasing.

THE shore of Innisfallen has much variety, but in general it is woody, and of the beautiful character which predominates in that island; one bay, at taking leave of it, is exceedingly pretty, it is a semicircular one, and in the center there is a projecting knole of wood within a bay; this is uncommon, and has an agreeable effect.

THE near approach to Tomys exhibits a sweep of wood, so great in extent, and so rich in foliage,

that no person can see without admiring it. The mountainous part above is soon excluded by the approach; wood alone is seen, and that in such a noble range, as to be greatly striking; it just hollows into a bay, and in the center of it is a chasm in the wood; this is the bed of a considerable stream, which forms O'Sullivan's Cascade, to which all strangers are conducted, as one of the principal beauties of Killarney. Landed to the right of it, and walked under the thick shade of the wood, over a rocky declivity; close to the torrent, which breaks impetuously from rock to rock, with a roar that kindles expectation. The picture in your fancy will not exceed the reality; a great stream bursts from the deep bosom of a wooded glen, hollowed into a recess of rocks and trees, the first fall is many feet perpendicularly over a rock, to the eye it immediately makes another, the bason into which it pours being concealed; from this bason it forces itself impetuously between two rocks; this second fall is also of a considerable height, but the lower one, the third, is the most considerable, it issues in the same manner from a bason hid from the point of view. These basons being large, there appears a space of several yards between each fall, which adds much to the picturesque scenery; the whole is within an arch of wood, that hangs over it; the quantity of water is so considerable as to make an almost deafening noise, and uniting with the torrent below, where the fragments of rock are large and numerous, throw an air of grandeur over the whole. It is about 70 feet high. Coast from hence the woody shores of Tomys and Glena, they are upon the whole much the most beautiful ones I have any where seen; Glena woods have more oak, and some arbutuses,

arbutuses, are the finer and deeper shades ; Tomys has a great quantity of birch, whose foliage is not so luxuriant. The reader may figure to himself what these woods are, when he is informed that they fill an unbroken extent of six miles in length, and from half a mile to a mile and a half in breadth, all hanging on the sides of two vast mountains, and coming down with a full robe of rich luxuriance to the very water's edge. The acclivity of these hills is such, that every tree appears full to the eye. The variety of the ground is great ; in some places great swells in the mountain side, with corresponding hollows, present concave and convex masses ; in others, considerable ridges of land and rock rise from the sweep, and offer to the astonished eye yet other varieties of shade. Smaller mountains rise regularly from the immense bosom of the larger, and hold forth their sylvan heads, backed by yet higher woods. To give all the varieties of this immense scenery of forest is impossible. Above the whole is a prodigious mass of mountain, of a gently swelling outline and soft appearance, varying as the sun or clouds change their position, but never becoming rugged, or threatening to the eye.

THE variations are best seen by rowing near the shore, when every stroke of the oar gives a new outline : but for one great impression, row about two miles from the shore of Glenna ; at that distance the inequalities in the surface are no longer seen, but the eye is filled with so immense a range of wood, crowned with a mountain in perfect unison with itself, that objects, whose character is that of beauty, are here, from their magnitude, truly magnificent,
and

and attended with a most forceable impression.—Returned to Mucruis.

SEPTEMBER 30th, this morning I had dedicated to the ascent of Mangerton, but his head was so enshrouded in clouds, and the weather so bad, that I was forced to give up the scheme: Mr. Herbert has measured him with very accurate instruments, of which he has a great collection, and found his height 835 yards above the level of the sea. The Devil's Punch-bowl, from the description I had of it, must be the crater of an exhausted volcano: there are many signs of them about Killarney, particularly vast rocks on the sides of mountains, in streams, as if they had rolled from the top in one direction. Brown stone rocks are also sometimes found on lime quarries, tossed thither, perhaps in some vast eruption.

IN my way from Killarney to Castle Island, rode into Lord Kenmare's park, from whence there is another beautiful view of the lake, different from many of the preceding; there is a broad margin of cultivated country at your feet, to lead the eye gradually to the lake, which exhibits her islands to this point more distinctly than to any other, and the back grounds of the mountains of Glenna and Tomys give a bold relief.

UPON the whole, Killarney, among the lakes that I have seen, can scarcely be said to have a rival. The extent of water in Loch Earne is much greater; the islands more numerous, and some scenes near Castle Caldwell, of as great magnificence. The rocks at
Keshwick

Keshwick are more sublime, and other lakes may have circumstances in which they are superior; but when we consider the prodigious woods of Killarney; the immensity of the mountains; the uncommon beauty of the promontory of Mucrufs, and the Isle of Innisfallen; the character of the islands; the single circumstance of the arbutus, and the uncommon echoes, it will appear, upon the whole, to be in reality superior to all comparifon.

BEFORE I quit it, I have one other observation to make, which is relative to the want of accommodations and extravagant expence of strangers refiding at Killarney. I fpeak it not at all feelingly, thanks to Mr. Herbert's hofpitality, but from the accounts given me: the inns are miserable, and the lodgings little better. I am furprized somebody with a good capital does not procure a large well-built inn, to be erected on the immediate fhore of the lake, in an agreeable fituation, at a diftance from the town; there are very few places where fuch an one would anfwer better: there ought to be numerous and good apartments; a large rendezvous-room for billiards, cards, dancing, mufick, &c. to which the company might refort when they chofe it; an ordinary for thofe that liked dining in public; boats of all forts, nets for fifhing, and as great a variety of amufements as could be collected, efpecially within doors: for the climate being very rainy, travellers wait with great impatience in a dirty common inn, which they would not do if they were in the midft of fuch accommodations as they meet with at an Englifh fpaw. But above all, the prices of every thing, from a room and a dinner, to a barge and a band of mufic, to be reasonable,

able, and hung up in every part of the house: the resort of strangers to Killarney would then be much increased, and their stay would be greatly prolonged; they would not view it post-haste, and fly away the first moment to avoid dirt and imposition. A man, with a good capital and some ingenuity, would, I think, make a fortune by fixing here upon such principles.

IN the line of agriculture, Mr. Herbert has carried on some important experiments, which deserve attention. Of 360 acres he has reclaimed 140, which, before he began, were covered with great rocks, stones, brambles, (*rubus fruticosus*) and furze (*eulex europæus*.) His first operation was to cut down and grub up the spontaneous growth that was the strongest: but the rest he set fire to, in order to plough them up with bullocks. Then he attacked the stones, some of which were five or six feet square; the large ones were burst in pieces by kindling fires upon them, being the brown sandstone. But this operation will have no effect on lime-stone; others not so large were drawn off the land by bullocks, to some of which 30 were harnessed: but all stones that could be got at were by some means or other carried off.

THIS work of breaking the stones by fire is very curious, and exceedingly useful: Mr. Herbert appeared to have attended very closely to the operation. He informed me that they first light a good fire, which in about a quarter of an hour enables them to beat off the outward skin off the stone with a sledge hammer, and they then immediately light a second
fire,

fire, which soon makes the stone crack. The men observe to keep it a lively brisk fire, free from ashes; when the stone cracks, they assist it with a strong blow of the hammer, which then bursts it asunder, and is at once broken in pieces without difficulty.

IN ploughing the land, as soon as this work was done, the remaining roots of furze, &c. were so large, that he was forced to fasten two ploughs together with chains, and then with a great force of bullocks, tore up the roots, the ploughs and tackle being remarkably strong. The ashes of the wood, &c. being spread with those of the rubbish, numerous ploughings were given. The soil a thin gravel, of a whitish hungry appearance, but lime changed it at once to a rich brown colour. The last ploughing turned in the lime: upon which Mr. Herbert, fresh from Tull and Randal, determining to become a driller, drilled it with wheat, the clearest proof in the world how completely the ground had been reclaimed. This crop he horse hoed, following the directions of Tull and Duhamel; the produce was trifling, the practice found very expensive, and the crops unprofitable: but they were beautiful and elegant to look at. He tried it for wheat, lucerne, sainfoin, red clover, beans, pease, and, in a word, every plant recommended by the drill writers, and continued it for four years. Having ascertained this thorough experience, that the drill husbandry was exceedingly disadvantageous, he gave it up, and laid down with white clover and hay seeds; and could let it at 20s. an acre. Mr. Herbert, however, going to England, they were not taken such care of as they ought, never being manured. Some were laid down with burnet,

burnet, which took very well in the land, but was soon overcome and choaked with natural grass. Bird grass he tried, got the seed from Rocque, but finds it a very coarse poor plant of no value. Lucerne he had upon a very extensive scale; having six acres; found it a very good grass, fed all sorts of cattle with success, particularly in fattening bullocks, the fat of them being marbled in the finest manner imaginable. He had it in broad cast, and used Rocque's harrow; but upon his soil the harrow tore up the lucerne as well as the weeds, yet the natural grass got much a-head. The drill method is the best; but such is the luxuriant growth of the common grasses in Ireland, that there was the greatest difficulty in keeping it clean. Sainfoine also did very well, but the grass had with that the same effect as the lucerne.

MR. HERBERT has cultivated potatoes in the common lazy-bed method, in large spaces, and he is convinced, from repeated experience, that there is no way in the world of managing that root that equals it, especially for bringing in waste lands. It has been with the greatest surprise that he has read this mode condemned by several English writers; when properly executed it mixes the land and the manure, and by taking two crops successively, and digging them out, if all the land is stirred, it leaves it in admirable order for a successive crop of any kind.

FOLDING sheep Mr. Herbert practises by means of a contrivance of his own; instead of hurdles, a pole 12 feet long, and 5 inches diameter, stuck through with perpendiculars, and having at each end two longer pieces to rest on, in form of a cross: these are
move-

moveable, and easily set in rows. He pens the sheep on his grafs lands, and finds the effect wonderful, nothing equalling them for manuring the land, and at a very small expence. Is clearly of opinion, there could be no greater improvement to Ireland than introducing the practice generally.

AN observation which Mr. Herbert has made on mowing land is highly deserving attention: it is, that land ought always to be mowed, though the value of the hay will not pay the expence. It is common in Ireland to mow parts of fields that are good, and leave the rest; but he always cuts the whole, and finds the practice very advantageous to the land.

SOME bog this gentleman has improved merely by draining, and then spreading mold upon it, without tilling or burning, brings it to a meadow as soon as possible: and this is the method he would, in all cases, recommend for their improvement, as there is never any necessity of tillage in order to bring them to grafs.

RELATIVE to the common husbandry of this neighbourhood, I found that the soil is divided, between lime-stone and brown-stone. The peninsula of Mucrufs is half the one and half the other, the one ending suddenly where the other begins: the vale also to Killarney and beyond is lime-stone for the extent of many miles, and in general the mountains are all brown-stone, and the vales lime-stone. Rents here are about 8s. an acre on an average, including much indifferent land, but not the mountains. About three-fifths of the county of Kerry is waste land, not rising to above 3d. an acre, and the other

other fifts on an average at 7s. an acre. Farms are from 20l. a year to 130l. the large ones include considerable mountain tracts. The tillage of the country is trifling. The course is,

1. Potatoes, sow eight pecks, at 70lb. and get 80 lb. at 7l. an acre.
2. Wheat, 6l.
3. Oats.
4. Oats. (Poor crops not above 3l. 10s. an acre)
5. Lay it out to weeds, &c.

LIME the manure, from 60 to 80 barrels an acre, which costs 6d. to 8d. a barrel burning. Mr. Herbert can burn it for 4d. five miles off. Pasturage is applied chiefly to dairies; the common ones about 40 or 50 cows. They are all let at 40s. to 50s. a cow. Three acres allowed to a cow; some paid in butter. The dairyman has his privilege, which is a cabbin, potatoe garden, liberty to cut turf, and a quantity of land proportioned to the number of cows. The butter is all sent to Corke on horses backs in truckles, and in that way the poor horses of the country will carry 8 cwt. the distance 37 miles. They go in two days, and generally home in a week. Bring back rum, groceries, &c. they are paid 9d. for carrying a firkin of butter of 56 lb. and for the back carriage 1s. 8d. a cwt. Very few sheep kept; no flocks, except Mr. Herbert's. It is remarkable, that no sheep in the country are better fattened than many upon Mac Gilly Cuddy's Reeks, which are the wildest and most desolate region of all Kerry. Great herds of goats are kept on all the mountains of this country, and prove of infinite use to the poor people. The inhabitants are not in general well off; some of them have neither cows nor goats, living entirely upon potatoes, yet are they better than twenty years ago,

ago, particularly in cloathing. Price of provision the same as at Nedeen, but pork not common. Turkeys, at 9d. Salmon, at 1d. Trout and perch plentiful. No pike in Kerry. Lampreys and eels, but nobody eats the former. All the poor people, both men and women, learn to dance, and are exceedingly fond of the amusement. A ragged lad, without shoes or stockings, has been seen in a mud barn, leading up a girl in the same trim for a minuet: the love of dancing and music are almost universal amongst them.

THE Rev. Mr. Bland, of Wood Park, near Killarney, at whose house I had the pleasure to dine with Mr. Herbert, has improved a great deal of boggy land; the turf six inches deep, was burnt, but would not give ashes; under it a brown gravel; he reclaimed it by trenching in May, and liming eighty barrels per acre; dunged the following spring, and planted with potatoes; the crop equal to the best; then a second crop, a greater produce, but the roots not so large; care was taken in the digging them, to bring up the sod and manure; in the spring dug again for turnips or oats, the turnips very good, but has generally sown oats; the crop tolerable, great straw, but must be sown very thin, or they will lodge; leave the oat stubble, and it becomes in one year grass to mow. Has tried turnips, and found them to answer perfectly, in fattening sheep infinitely better than any winter or spring grass.

SEPTEMBER 30th, took my leave of Mucruss, and passing through Killarney, went to Castle Island. In my way to Arbella, crossed a hilly bog of vast extent, from one to six or seven feet deep, as improveable as ever I saw, covered with bog myrtle (*myrica gale*)

and coarse grafs: it might be drained at very little expence, being almoſt dry at preſent. It amazed me to ſee ſuch vaſt tracts in a ſtate of nature, with a fine road paſſing through them.

To Mr. Blennerhaſſet, member for the county, I am indebted for every attention towards my information. About Caſtle Iſland the land is very good, ranking among the beſt in Kerry. From that place to Arbella, the land is as good as the management bad, every field over-run with all kinds of rubbiſh, the fences in ruins, and no appearance but of deſolation: they were mowing ſome fine crops of hay, which I ſuppoſe will be made in the ſnow. The following is the ſtate of huſbandry about Arbella.

THE ſoil, from Caſtle Iſland to Tralee, is from a guinea to a guinea and a half; it is all a rich lime-ſtone land: ſome about Tralee at 3l. 10s. to 4l. 4s. About Arbella I went over ſome exceeding fine reddiſh ſandy and gravelly loam, a prodigiouſly fine ſoil: fern (*pteris aquilina*) the ſpontaneous growth, which I remarked in Ireland to be a ſure ſign of excellent land. Two-thirds of the county is mountain, which runs at no great rent, being thrown into the bargain. Six parts in ſeven of the whole mountain and bog. The remainder at 10s. an acre.

1. Potatoes. 2. Potatoes. 3. Wheat, or barley. 4. Oats. 5. Ditto. 6. Ditto. 7. Ditto. 8. Lay it out, and not a blade of graſs comes for three or four years.

THE beſt part of the country is under dairies. Great farmers hire vaſt quantities of land, in order

to stock with cows, and let them to dairymen; one farmer, who died lately, paid 1400l. a year for this purpose; but 300l. or 400l. common.

THE number of cows to one man, generally from twenty to forty. Let at one cwt. and 16s. per cow, or $1\frac{1}{2}$ cwt. of butter, and 16s. each, some one cwt. 12s. and a hog, besides one fourth part of all the calves a year old. In the mountains, half cwt. and 5s. Others with all the calves to the dairymen. The dairymen's privilege, from two to four collops kept for them, and one or two acres, with a cabin; these dairymen live very indifferently, their privilege being all their profit, and sometimes not that. The farmer who lets the cows, must keep the number to such as give two pottles of milk. All the dairies in this county, as in others, in the bonny clobber method, that is, letting the milk stand several days, till the cream comes off, by taking hold of it between the fingers, like a skin of leather, and some till it is moldy, the remainder bonny clobber. Forty acres will carry twenty cows through the year. The cows are in general of the small breed, but not the true Kerry, for many have been brought from other countries. A cow sells at a guinea a pottle for the milk, above two or three pottles, that is 4l. 4s. four pottles, 5l. 5s. for five pottles, given at one meal. A little fattening of cows and small bullocks, but the number not great. No sheep kept.

As to manure none is used in the vale, except their dung for potatoes, but upon the mountains they lime a little.

THERE is a colony of palatines, that have been fixed here above thirty years; there are now fifteen or sixteen families; Colonel Hasset brought them from the county of Limerick, and fixed them here as little farmers, and these few people cost him above 500*l.* settling. He gave each a cow, a horse, and every thing they wanted for a year, and let the land to them for half its value. Their improvements have been first, by ploughing with a wheel plough, which with two horses works easily without a driver. They brought in cars with wheels, there were only sliding ones before. They also sow all their potatoes in drills with the plough, and also plough them out, and this with great success, but nobody follows them.

YEARS purchase of land sixteen to eighteen. Rents three years ago fallen exceedingly, from having been too high let, but of late they have risen again. The rise in the price of labour from three-pence and four-pence in twenty years, to five-pence and six-pence. Oysters, two-pence to three-pence per hundred; near Tradee there is a strand six miles long, which is on a bed of oysters, and is a curious object. Lobsters, twelve years ago, one penny each, now two-pence to four-pence. Salmon, three halfpence. woodcocks, ten-pence a couple. Partridges, ten-pence a couple. A grouse, one shilling. Whittings, one penny each. Herrings, three a penny. Plaice, turbot, mullets, and some soles. Potatoes, 1*s.* 6*d.* per cwt. the cheapest, medium, 2*s.* 6*d.* Cabbins of stone, mortar and slate, 25*l.* Many orchards in this county, give, upon an average, ten hogsheds of cyder per acre, some fifteen; they reckon young trees the best, from 12 to 20 years old.

THE

THE state of the poor in the whole county of Kerry represented as exceedingly miserable, and, owing to the conduct of men of property, who are apt to lay the blame on what they call land pirates, or men who offer the highest rent, and who, in order to pay this rent, must, and do re-let all the cabin lands at an extravagant rise, which is assigning over all the cabins to be devoured by one farmer. The cottars on a farm cannot go from one to another, in order to find a good master as in England: for all the country is in the same system, and no redress to be found. Such being the case, the farmers are enabled to charge the price of labour as *low* as they please, and rate the land as *high* as they like. This is an evil which oppresses them cruelly, and certainly has its origin in its landlords, when they let their farms, letting all the cabins with them instead of keeping them tenants to themselves. The oppression is, the farmer valuing the labour of the poor at 4d. or 5d. a day, and paying that in land rated much above its value. Owing to this, the poor are depressed; they live upon potatoes and sour milk, and the poorest of them only salt and water to them, with now and then a herring. Their milk is bought; for very few keep cows, scarce any pigs, but a few poultry. Their circumstances are incomparably worse than they were twenty years ago; for they had all cows, but then they wore no linen: all now have a little flax. To these evils have been owing emigrations, which have been considerable.

OCTOBER 1st, rode over the mountain improvements which William Blennerhasset, Esq; of Elm Grove, has made: I viewed it with very great attention: for it projects far into a mountain of heath,

that lets only at 1s. an acre. I saw the progress of the improvement in different stages. He has done 250 Irish acres, and inclosed 300 more, and has been offered 20s. an acre for them, but the farm-houses were not built; at present he has four, to which he purposes to throw the whole.

THE method he pursued has been first to enclose with double ditches, four feet deep, and five broad, and the earth out of both thrown on to a parapet, ten feet broad, and some more, planted with rows of trees, and of osiers, the expence in labour, 2s. a perch. While this work is doing, he ploughs nine or ten inches deep, and as soon as the weather will admit, burns; then he tills it again once or twice, and burns again; and before the last ploughing, limes 100 barrels an acre, which costs him (burning it himself) sixpence a barrel, including carriage and spreading: upon this he sows corn, has tried wheat, rye, and oats, but oats answer the best; has tried potatoes, and they did pretty well, followed them with corn, and then *laying it out*, that is, leaving it to grafs itself. The other is to sow corn as long as it will yield any, when it is exhausted, to lay it out two or three years, and then plough and lime, take two crops of corn, and lay it out again; and this way he thinks is the best, from the experience of forty years, for so long the improvement has been making. Trees of all sorts have grown perfectly well, but the ash has done best. A ploughing costs 6s. an acre. Graffaning and burning, 2l. an acre. Mr. Hasset's stock at present on this farm, 30 horses, mares and foals, 100 cows, 100 sheep, 100 young cattle, 8 plough bullocks: a noble stock of cattle for a spot which was all heath.

Mr,

MAHAGREE ISLANDS. 471

MR. BLENNERHASSET has also tried lime-stone sand, over one part of a field, and lime upon the rest, spread but lately, yet the appearance is much in favour of the sand.

OCTOBER 2d, to Ardfert by Tralee, through a continuation of excellent land, and execrable management. Mr. Bateman tried rock salt on grass land for a manure, half a ton to the English acre, but found not the least benefit from it. But of lime he has used large quantities, and with great success; burning it for 6d. a barrel, in a standing kiln with turf, four eyes or fires to each; lays on 50 barrels to an acre, and has advanced some land by draining and liming, from 5s. to 20s. an acre, the soil a cold stiff clayey gravel.

To the west of Tralee are the Mahagree islands, famous for their corn products; they are rock and sand, stocked with rabbits; near them a sandy tract, 12 miles long, and one mile broad, to the north, with the mountains to the south, famous for the best wheat in Kerry. All under the plough. Their course:

1. Buck potatoes. 2. Barley. 3. Wheat. Also corn on some land, without any intermediate crop. Manure for every crop, if potatoes with sea weed, and get great crops; they get 20 for one of wheat and barley. All grain is remarkably early; they have sown English barley, and made bread of the crop in six weeks; these lands let at 14s. or 15s. an acre, but some much higher. Farms are large, one, two, or three hundred acres, but some are taken in part-

H h 4

nership,

nerthip. I was assured, that in these islands, they have known two crops of barley gained from the same land in one year, and the second better than the first. They sowed the first of april, and reaped the middle of may, and immediately sowed a second, which they reaped the end of august. This was done by John Macdonald, of Maharaghbeg.

ARRIVING at Ardfert, Lord Crosby, whose politeness I have every reason to remember, was so obliging as to carry me by one of the finest strands I ever rode upon, to view the mouth of the Shannon at Ballyengary, the scite of an old fort: it is a vast rock separated from the country by a chasm of a prodigious depth, through which the waves drive. The rocks of the coast here are in the boldest stile, and hollowed by the furious Atlantic waves into caverns in which they roar. It was a dead calm, yet the swell was so heavy, that the great waves rolled in and broke upon the rocks with such violence as to raise an immense foam, and give one an idea of what a storm would be, but fancy rarely falls short in her pictures. The view of the Shannon is exceedingly noble; it is eight miles over, the mouth formed by two headlands of very high and bold cliffs, and the reach of the river in view very extensive: it is an immense scenery. Perhaps the noblest mouth of a river in Europe.

CROSSED in the way a large bog, highly improvable, saw some little spots taken in with heaps of sea sand for carrying it on.

LORD GLENDOUR manures his ground with lime, sea sand, and sea weed, the last is the worst, the sand best.

best. Land lets at 12s. or 13s. an acre on an average; it rises from 10s. to 20s.

ARDFERT is very near the sea, so near it, that single trees or rows are cut in pieces with the wind, yet about Lord Glendour's house there are extensive plantations exceedingly flourishing, many fine ash and beech; about a beautiful cistercian abbey, and a silver fir of 48 years growth, of an immense height and size.

OCTOBER 3d, left Ardfert, accompanying Lord Crosby to Listowel. Called in the way to view Lixnaw, the ancient seat of the earls of Kerry, but deserted for ten years past, and now presents so melancholy a scene of desolation, that it shocked me to see it. Every thing around lies in ruin, and the house itself is going fast off by thieving depredations of the neighbourhood. I was told a curious anecdote of this estate, which shews wonderfully the improvement of Ireland: The present Earl of Kerry's grandfather, Thomas, agreed to lease the whole estate for 1500l. a year, to a Mr. Collis, *for ever*, but the bargain went off upon a dispute, whether the money should be paid at Corke or Dublin. Those very lands are now let at 20,000l. a year. There is yet a good deal of wood, particularly a fine ash grove, planted by the present Earl of Shelburne's father.

PROCEEDED to Woodford, Robert Fitzgerald's, Esq; passing Listowel bridge, the vale leading to it is very fine, the river is broad, the lands high, and one side a very extensive hanging wood, opening on those of Woodford in a pleasing stile.

WOOD-

WOODFORD is an agreeable scene; close to the house is a fine winding river under a bank of thick wood, with the view of an old castle hanging over it. Mr. Fitzgerald is making a considerable progress in rural improvements; he is taking in mountain ground, fencing and draining very completely, and introducing a new husbandry. He keeps 30 pigs, which stock he feeds on potatoes, and has built a piggery for them. Turnips he cultivates for sheep, and finds they answer perfectly. Not being able to get men who understand hoeing, he thins them by hand. He has five acres of potatoes put in drills with the plough, and designs ploughing them out: they look perfectly well, and promise to be as good a crop as any in the trench way. The common course in this neighbourhood is,

1. Potatoes. 2. Potatoes. 3. Wheat. 4. Oats,
5. Leave it to grass and weeds.

FARMS are very much in partnership, and improvements exceedingly backward on that account. The poor live on potatoes and milk all the year round, but are rather better off than they were twenty years ago. The labour of the country is generally done for land in the manner I have so often described, rated at an exorbitant price, to pay 4d. in winter; 5d. in summer; some 6d. round. Three-fourths of Kerry mountain and bog, at 1s. 6d. the rest at 1s.

IN 1765, Mr. Fitzgerald was travelling from Constantinople to Warsaw, and a waggon with his baggage, heavily laden, upset; the country people harnessed two buffaloes *by the horns*, in order to draw it

it over, which they did with ease. In some very instructive conversation I had with this gentleman, on the subject of his travels, this circumstance particularly struck me.

OCTOBER 4th, from Woodford to Tarbat, the seat of Edward Leslie, Esq; through a country, rather dreary, till I came upon Tarbat, which is so much the contrary, that it appeared to the highest advantage; the house is on the edge of a beautiful lawn, with a thick margin of full-grown wood, hanging on a steep bank to the Shannon, so that the river is seen from the house over the tops of this wood, which being of a broken irregular outline, has an effect very striking and uncommon; the river is two or three miles broad here, and the opposite coast forms a promontory, which has from Tarbat exactly the appearance of a large island. To the east, the river swells into a triangular lake, with a reach opening at the distant corner of it to Limerick: the union of wood, water, and lawn, forms upon the whole a very fine scene; the river is very magnificent. From the hill, on the coast above the island, the lawn and wood appear also to great advantage. But the finest point of view is from the higher hill on the other side of the house, which looking down on all these scenes, they appear as a beautiful ornament to the Shannon, which spreads forth its proud course, from two to nine miles wide, surrounded by highlands: a scenery truly magnificent. I am indebted to Mr. Leslie's good offices for the following particulars.

ARABLE land about Tarbat lets at 14s. on an average; Mr. Leslie, in 1771, let several farms at 17s. but the fall of that period reduced the rents 3s.

Farms

Farms are from 50 acres to 3 or 400: it is common to have the poor people hire them in partnership, but only the small ones; the large are all stock farms. The tillage course;

1. Potatoes, produce 28 barrels, at 16 pecks each, and the peck 60 lb. or 26,880 lb. in all. 2. Potatoes. 3. Oats. 4. Lay out for several years. The second crop of potatoes more numerous, but not so large; they manure for them only with dung. The oats yield six barrels, each 26 stone, being double ones. Very little wheat sown but by gentlemen or large farmers, who burn the land; plough it, and burn the sod, which they call *beating*, and manure with lime or sea sand; 40 barrels of lime at 1s. The stone is brought from an island towards Limerick. They get sand at the same place. Lime does best for tillage, and sand for grass. The stock farms are either under dairies, or in the succession system, of buying in year olds from the county of Clare, and keeping them till three or four years old, the heifers till they calve; buy at a guinea to 30s. sell from 3l. 5s. to 4l. 10s. at four years old. There are also some cows fattened: bought in in general at 3l. or 3l. 10s. sell in october at 4l. 10s. to 5l. The dairies are set to dairymen, the price is one cwt. of butter, and 10s. to 15s. horn money; the dairyman has all the calves, and must sell off at michaelmas. His privilege is a house and potatoe garden, and grass for a cow for every ten. A collop here, is one cow, one horse, two yearlings, six sheep; two acres to feed a collop, and some two and a half. Every cabin has a bit of flax, which they spin and manufacture for their own use, there being some weavers dispersed about the country. A little pound yarn is sold besides to Limerick,

merick, but not much. Some wool is spun for their own use, and wove into frize.

THE state of the poor is something better than it was twenty years ago, particularly their cloathing, cattle, and cabbins. They live upon potatoes and milk; all have cows; and when they dry them, buy others. They also have butter, and most of them keep pigs, killing them for their own use. They have also herrings. They are in general in the cottar system, of paying for labour by assigning some land to each cabin. The country is greatly more populous than twenty years ago, and is now increasing; and if ever so many cabbins were built by a gradual increase, tenants would be found for them. A cabin, and five acres of land, will let for 4l. a year. The industrious cottar, with two, three, or four acres, would be exceedingly glad to have his time to himself, and have such an annual addition of land as he was able to manage, paying a fair rent for it; none would decline it but the idle and worthless.

TYTHES are all annually valued by the proctors, and charged very high. There are on the Shannon about 100 boats employed in bringing turf to Limerick from the coast of Kerry and Clare, and in fishing, the former carry from 20 to 25 tons, the latter from five to ten, and are navigated each by two men and a boy.

OCTOBER 5th, passed through a very unentertaining country (except for a few miles on the bank of the Shannon) to Altavilla, but Mr. Bateman being from home, I was disappointed in getting an account of the palatines settled in his neighbourhood. Kept the road to Adair, where Mrs. Quin, with a politeness

ness equalled only by her understanding, procured me every intelligence I wished for.

LAND lets about Adair from 10s. to 40s. an acre, average 20s. the richest in the country is the Corcafes on the Maag, which let at 30s. to 36s. a tract five miles long, and two broad, down to the Shannon, which are better than those on that river; the soil is a kind of yellow and blue clay, of which they make bricks; but there is a surface of blue mold. The grass of them is applied to fattening bullocks, from 7 to 8 cwt. each, and an acre fats one, and gives some winter and spring food for sheep. When they break this land up, they sow first oats, and get 20 barrels an acre, or 40 common barrels, and do not reckon that an extra crop; they take ten or twelve in succession, upon one ploughing, till the crops grow poor, and then they sow one of horse beans, which refreshes the land enough to take ten crops of oats more; the beans are very good. Wheat sometimes sown, and the crops very great. Were such barbarians ever heard of?

IN the common course of lands about Adair, the courses of crops are,

1. Potatoes. 2. Ditto. 3. Wheat. 4. Oats.
5. Oats. 6. Oats. 7. Lay out.

1. Potatoes. 2. Ditto. 3. Wheat. 4. Wheat.
5. Oats. 6. Oats. 7. Oats. 8. Lay out.

1. Potatoes. 2. Ditto. 3. Wheat. 4. Oats.
5. Lay out.

Pota-

Potatoes they plant on grafs without dung, a good crop, 60 barrels to an acre, at 8s. a barrel average. When they hire it, they pay fix guineas an acre; they dung tillage land and poor lays for them. Of wheat they sow a barrel an acre, and the crop in general eight to ten of those barrels. Oats they sow two to an acre, and get twelve to sixteen. The low moory and rushy bottoms they plough, and burn the furrows; upon that burning plough in the ashes, and harrow in rape seed, a pottle, or three quarts to an acre; never feed, but keep it for seed, and get eight Bristol barrels an acre; it sells usually at 14s. to 18s. a barrel; they sow bere afterwards, the produce ten barrels an acre; then a crop of oats, twelve to sixteen barrels, and then leave it to lay. No grafs seeds sown.

FARMS rise from forty acres to 2000l. a year; some few of the little ones are taken by cottars, in partnership, but not common; the large farms are all stock ones. Turnips have been sown many years, but by few; a little on pared and burnt land in the bottoms, instead of rape; the crops very large; they give them all to fat sheep, in order to keep their flesh for a better market after christmas; it is found to be a very advantageous practice, but not increasing. No hoeing. Hemp is sown a little by the palatines, but by few others. Flax, by every cabbin, in order for a little spinning for their own use.

THE system of the stock farmers is in general dairying, but upon the best lands they fatten bullocks, cows being only kept on lands which they think will not do for bullocks. The cows are all let, and paid for principally by butter, one cwt. to a cow, and

25s. horn money. The dairyman's privilege is a cabin, a garden of an acre, and the grass of a cow or horse to every twenty cows, and may rear half the calves, and keep them to november or christmas. To 60 acres, 24 cows, 1 horse, 30 sheep; this is just two acres a head, and it is about the average of the country. The dairymen are not in good circumstances, making a mere living. The swine here are of a large white sort, and rise to two cwt. they are mostly fattened on potatoes, but have some oats at last to harden the fat. A great many sheep; the system is to keep the lambs till three year old wethers, and sell them fat at 20s. each; the fleeces 7 lb. Tythes, wheat 6s. barley 5s. oats 4s. rape no tythe. Potatoes 8d. to 10d. mowing ground 1s. to 3s. sheep 2d. each.

THE poor people do not all keep cows, but all have milk, and pigs and poultry; they are not better off than twenty years ago. Of a potatoe garden, one-half to three-fourths of an acre carries a family through the year; they live entirely upon them, selling their pigs. They pay a guinea for a cabin, and 10 perch; if half an acre, 2l. 2s. A whole acre, and a cabin on poor ground, 3l. 3s. but not so cheap if near a village. Labour paid in land in general. Grass of a collop 2l. 2s. if a cow hayed, 50s.

THE palatines were settled here by the late Lord Southwell, about seventy years ago. They have in general leases for three lives, or 31 years, and are not cottars to any farmer, but if they work for them, are paid in money. The quantities of land are small, and some of them have their feeding land in common by agreement. They are different from the Irish in several

several particulars; they put their potatoes in with the plough in drills, horse-hoe them while growing, and plough them out. One-third of the dung does in this method, for they put it only in the furrows, but the crops are not so large as in the common method. They plough without a driver; a boy of twelve has been known to plough and drive four horses, and some of them have a hopper in the body of their ploughs; which sows the land at the same time it is ploughed. Their course of crops,

1. Potatoes. 2. Wheat. 3. Wheat. 4. Oats.

1. Potatoes. 2. Barley. 3. Wheat. 4. Oats.

IN which management they keep their land many years, never laying it out as their neighbours do. They preserve some of their German customs; they sleep between two beds. They appoint a burgomaster, to whom they appeal in case of all disputes; and they yet preserve their language, but that is declining. They are very industrious, and in consequence are much happier and better fed, cloathed; and lodged, than the Irish peasants. We must not, however, conclude from hence that all is owing to this, their being independent of farmers, and having leases, are circumstances which will create industry. Their crops are much better than those of their neighbours. There are three villages of them, about seventy families in all. For some time after they settled, they fed upon four crout, but by degrees left it off, and took to potatoes: but now subsist upon them and butter and milk, but with a great deal of oat bread, and some of wheat, some meat and fowls, of which they raise many. They have all offices to their houses,

that is, stables and cow-houses, and a lodge for their ploughs, &c. They keep their cows in the house in winter, feeding them upon hay and oat straw. They are remarkable for the goodness and cleanliness of their houses. The women are very industrious, reap the corn, plough the ground sometimes, and do whatever work may be going on; they also spin, and make their children do the same. Their wheat is much better than any in the country, insomuch that they get a better price than any body else. Their industry goes so far, that jocular reports of its excess are spread: in a very pinching season, one of them yoked his wife against a horse, and went in that manner to work, and finished a journey at plough. The industry of the women is a perfect contrast to the Irish ladies in the cabins, who cannot be persuaded, on any consideration, even to make hay; not being the custom of the country; yet they bind corn, and do other works more laborious. Mrs. Quin, who is ever attentive to introduce whatever can contribute to their welfare and happiness, offered many premiums to induce them to make hay, of hats, cloaks, stockings, &c. but all would not do.

Few places have so much wood as Adair: Mr. Quin has above 1000 acres in his hands, in which a large proportion is underwood. The deer park of 400 acres is almost full of old oak and very fine thorns, of a great size; and about the house the plantations are very extensive, of elm and other wood, but that thrives better than any other sort. I have no where seen finer than vast numbers here. There is a beautiful river runs under the house, and within view are no less than three ruins of franciscan friaries,

aries, two of them remarkably fine, and one has most of the parts perfect, except the roof.

IN Mr. Quin's house, there are some very good pictures, particularly an annunciation, by Dominico, which is a beautiful piece. It was brought lately from Italy by Mr. Quin, junior. The colours are rich and mellow, and the airs of the heads inimitably pleasing; the group of angels at the top, to the left of the piece, are natural. It is a piece of great merit. The companion is a magdalen; the expression of melancholy, or rather misery, remarkably strong. There is a gloom in the whole in full unison with the subject. There are, besides these, some others inferior, yet of merit, and two very good portraits of Lord Dartry, (Mrs. Quin's brother) and of Mr. Quin, junior, by Pompeo Battoni. A piece in an uncommon stile, done on oak, of Esther and Ahasuerus: the colours tawdry, but the grouping attitudes and effect pleasing.

OCTOBER 7th, to Castle Oliver, by Bruff, passing through a very fine tract of rich reddish loam. The Right Hon. Mr. Oliver was assiduous to the last degree to have me completely informed. About his seat, the soil is brown stone on different slate strata, mountainous; the mountain tops are thrown into the bargain; mountain farms, tops, bottoms and sides, is. an acre; furze land reclaimed, some from 15s. to 20s. Farms of all sizes, but the occupying tenants have from 15 to 100 acres, some 300. The course of crops:

1. Potatoes. 2. Potatoes. 3. Potatoes. 4. Oats.
5. Oats. 6. Oats. 7. Lay out: sometimes only
two of potatoes.

THEY manure for potatoes with all the dung they can get. Very little under tillage, and the grafs applied chiefly to dairies. In one particular they are very attentive; which is, to conduct the mountain streams into their grafs lands; cutting little channels, to introduce the water as much as possible over the whole; and though it comes from a poor mountain of brown stone, or turf, yet the benefit they find to be very great. This is a general custom among all the little occupiers; and they are frequently coming to Mr. Oliver, with complaints of each other for diverting or stealing one another's streams. This is an instance of excellent husbandry, which I do not recollect meeting with before in Ireland. They always mow it the year they water it, and their crops of hay two ton, or $2\frac{1}{2}$ an acre. They do not reclaim any mountain, but sometimes a little furze land for potatoes. They have some lime-stone sand; but being at a distance, they use it in small quantities, a few barrels an acre sown for potatoes, which is effectual in preventing them from being wet or rotting. The state of the poor people better in these mountainous tracts than upon the rich flats of Limerick, from there being more employment and greater plenty of land for them. Some few farms taken in partnership. The cattle system is generally dairying cows, which are all let to dairymen. There has been a fall in rents since 1771-2, of 2s. 3s. or 4s. an acre, but it is not falling at present. Building a cabbin 4l. to 5l. Ditto stone, slate, &c. 25l.

RELA-

LIMERICK GRAZING. 485

RELATIVE to the rich lands of this country, they are principally found, first in the barony of Small County, which is rich; Coonagh has much; Coshlea a great deal, and much mountain; Clanwilliam, a good share. The rich land reaches from Charleville, at the foot of the mountains, to Tipperary, by Kilfenning, a line of twenty-five miles, and across from Ardpatric to within four miles of Limerick, 16 miles. Bruff, Kilmallock, and Hospital have very good land about them; the quantity in the whole conjectured to be 100,000 acres. It is in general under bullocks, but there is some tillage scattered about, to the amount probably of a fifteenth of the whole; the rents are from 25s. to 40s. but average 30s. an acre.

THE county of Limerick, besides the rich grazing, has a light lime-stone land for sheep and cows, at 15s. to 20s. There are also yellow clays, from 10s. to 20s. also middling land of furze and fern, from 10s. 6d. to 11. 1s. Some mountain 1s. likewise fifteen miles of corcasses on the Shannon, two to three miles broad. Average of the whole county, 20s. The county of Tipperary, 18s.

As to the soil I am able to speak of it particularly, for Mr. Oliver was so kind as to ride through a great variety of it, a man with a spade following to dig; the finest in the country is upon the roots of mountains; it is a rich, mellow, crumbling, putrid, sandy loam, eighteen inches to three feet deep, the colour a reddish brown. It is dry sound land, and would do for turnips exceedingly well, for carrots, for cabbages, and in a word for every thing. I think upon the whole, it is the richest soil I ever saw, and such

486 LIMERICK GRAZING.

as is applicable to every purpose you can wish; it will fat the largest bullock, and at the same time do equally well for sheep, for tillage, for turnips, for wheat, for beans, and in a word, for every crop and circumstance of profitable husbandry.

THE lower lands are wetter, and under them a yellow clay, whereas in the upper, it is sandy loam to a considerable depth. The rent in England would be considerably higher than this of the bullock land in Ireland.

THE farms are of all sizes. The bullock farms rise to 600 acres, which quantity is a large farm; but there are many small ones under cottars and dairymen: the general run in stocking is a bullock of four and a half to seven cwt. average five hundred and a half to the acre, and quarter for the summer's grafs; but their not generally having a bullock to an acre, is owing to their keeping sheep and calves so late, even to june. The winter's hay amounts to about a rood, besides the acre for the summer food. These beasts are bought in at autumn, at three or four years old, average price 5l. they are fed regularly through the winter with hay every day in the fields where they are to be fattened in summer; they chuse the dry fields for it, but still mischief is done by it. All the hay is stacked in the fields for this purpose. The time of selling autumn. The profit they make per bullock, on an average, about three guineas. The principal winter system is buying calves, at 1l. 1s. to 2l. 2s. keeping them till may, and then selling them at 20s. to 30s. profit, but give them a bellyful of their best hay. A great many sheep are also sent to be wintered from Tipperary, which is
extraor-

LIMERICK GRAZING. 487

extraordinary, as their own lands are much drier than those of Limerick: they do this by hiring farms for the purpose. This is one of the most profitable articles; they bring the spring lambs in october, and keep them till may, and then send them back to Tipperary, and they are much better than others left there.

THE graziers are many of them rich, but generally speaking, not so much from the immediate profit, as from advantageous leases. I wanted much to be informed of their profit, but it is exceedingly difficult to come near it, for not a grazier in the country but denies his making any thing considerable: this is supposed to be a great piece of art, but I am very apt to think the truth not so far from the declaration, at least as well as I am able to judge from the information I have received,

	£.	s.	d.
Rent of an acre and a half for a bullock	2	12	6
County cess, at 6d.	-	0	8
Mowing and making one-third of an acre			
of hay - - - - -	-	0	3
A bullock 5l. interest at six per cent.	-	0	6
Labour 1s. 6d. an acre - - -	-	0	2
		3	4
Profit on a bullock - - -	-	3	3
Winter food, two sheep at 5s.	-	0	10
		3	13
Expences - - - - -	-	3	4
Profit - - - - -	-	0	8
			7

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From

From this is to be deducted the whole of chances, the loss of cattle, &c. and from what I was able to pick up, I have reason to believe that it does not exceed 10s. an acre at most. The sum necessary to stock 6l. an acre. I must observe that the profit is very low for land to yield, which is of such extraordinary fertility; it is of that soil which would do very well for tillage, for though it is not dry, yet it has not the wetness of our English clays, and would in a course of *good* tillage, pay infinitely better, as every person must admit, who are at all acquainted with the wet lands of Norfolk, Suffolk, Essex, &c. I am however very far from recommending it, for if the Irish tillage should be introduced, the very contrary would be the case, and the landlord suffer exceedingly from his estate being exhausted. In no part of Ireland have I seen more careless management than in these rich lands. The face of the country is that of desolation; the grounds are over-run with thistles (*carduus*) ragwort, (*senecio jacobæa*) &c. to excess; the fences are mounds of earth, full of gaps; there is no wood, and the general countenance is such, that you must examine into the soil before you will believe that a country, which has so beggarly an appearance, can be so rich and fertile.

To shew the rise of land, Sir Harry Hartstonge has a farm of 400 acres, which his grandfather let in 1676, at 4s. 6d. an acre, and thought so dear that an offer of a score of sheep and two goats were offered to be off; it would let now at 30s. I had this fact from himself. The breed of cattle here is all long horned. There are some cows fattened also, but not near so many as oxen. Likewise some dairies, which
are

are let for one cwt. of butter, and 20s. horn money. The dairyman's privilege is two or three cows, a cabin and a garden. The number seldom above a score; but the men are found so troublesome and imposing, that the owners have taken a different method, and employed dairywomen on their own account.

GREAT quantities of flax sown by all the poor and little farmers, which is spun in the country, and a good deal of bandle cloth made of it. This and pigs are two great articles of profit here; they keep great numbers, yet the poor in this rich tract of country are very badly off. Land is so valuable, that all along as I came from Bruff, their cabins are generally in the road ditch, and numbers of them without the least garden; the potatoe land being assigned them upon the farm where it suits the master best. The price they pay is very great, from 4l. to 5l. an acre, with a cabin; and for the grafs of a cow, 40s. to 45s. They are, if any thing, worse off than they were 20 years ago. A cabin and an acre of land 40s. and the grafs of two cows, the recompence of the year's labour: but are paid in different places by an acre of grafs for potatoes at 5l. Those who do not get milk to their potatoes, eat mustard with them, raising the seed for the purpose. The population of the country increases exceedingly, but most in the higher lands; new cabins are building every where. The tillage in these rich lands consist in,

1. Potatoes. 2. Potatoes. 3. Barley. 4. Wheat.
5. Oats. 6. Oats.

1. Po-

1. Potatoes. 2. Potatoes. (On spots $\frac{1}{2}$ or $\frac{1}{4}$ acre flax after the second potatoes.) 3. Wheat. 4. Barley. 5. Oats. 6. Oats. 7. Oats. 8. Oats. 9. Lay it out.

MR. OLIVER has known 150 Bristol barrels, each four bushels heaped of potatoes, which make six bushels, or 900 from an acre. The weight, strike measure, 15 stone. The common crop, 150 heaped barrels, at 4s. average price. Opinions differ much, whether the second crop is better or worse, but from one practice they have, I am clear which it must be; for they trust to the small potatoes left in the ground as seed, which are necessarily irregular: and I have found, by various trials, that a slice of a middling potatoe is far better than a whole small one,

POTATOES,

	£.	s.	d.
Rent - - - - -	5	13	8
Seed, 16 barrels and a half, at 10s. -	2	15	0
Cutting seed - - - - -	0	5	6
Digging - - - - -	0	14	0
Carrying out - - - - -	0	2	6
Trenching and sowing - - - - -	1	5	0
Weeding - - - - -	0	10	0
Digging out - - - - -	1	10	0
Gathering - - - - -	0	10	0
Carrying home - - - - -	0	9	6
Houfing - - - - -	0	6	0
Picking - - - - -	0	10	0
Tythe - - - - -	0	12	0
	<hr/>		
	15	3	2
	<hr/>		
	CROP.		

CASTLE OLIVER. 491

CROP.

			£.	s.	d.
150 barrels, at 4s. each.	-	-	30	0	0
Expences	-	-	15	3	2
Profit	-	-	14	16	10
100 barrels, at 4s. each.	-	-	20	0	0
Expences	-	-	15	3	2
Profit	-	-	4	16	10

The Bristol barrel, which is here charged at 4s. is heaped, and weighs 22 stone. The quality of the corn raised on these rich lands is much better than any other in the country; the quantity of barley, per acre, 12 Bristol barrels.

MR. RYVES, a gentleman of the neighbourhood, I had the pleasure of meeting at Castle Oliver: on $3\frac{3}{4}$ acres sowed nine bushels of bere, from which he had 111 Bristol barrels, striked measure. Of wheat, the crops fluctuating, but a middling one 12 barrels. Mr. Ryves has had 20 of oats, generally 15. All these crops are with good tillage; there are many who do not get near so much.

THERE is a bolting mill at Limerick, at Annsgrove, at Marlefield, at Clonmel, at Castle Hyde, at Newport: hence therefore there is no want of a market in this country for corn. I was surprized to find that land, in this rich country, sells at as many years purchase as in mountain tracts. Limerick is famous for cyder; the finest cakaggee is at Mr. Waller's,

ler's, Mr. Massey's, Mr. Westrope's, Mr. Monson's, &c. The soil of the orchards thin, on lime-stone.

MR. OLIVER has practised husbandry on a pretty extensive scale. A considerable part of his land is improved mountain, which he grubbed and cleared of spontaneous rubbish, and manured with lime-stone sand; and then cultivated some for corn, and some for turnips: where the land is boggy, he burns, in order to get rid of that soil which he considers as worth but little. Whatever he sows, the land runs at once immediately to thick fine grass, even on the mountain top; so that a stubble will, in the first year, yield a great crop of hay. A strong proof how adapted this country is to pasturage. In the breed of cattle he has been very attentive, purchasing bulls and cows, at the expence of 20 guineas each, of the long-horned Lancashire breed, and from them has bred others. I saw two exceeding well-made bulls of a year old of his breeding, which would have made a considerable figure in Leicestershire. Turnips he has cultivated for many years, applying them chiefly to feeding deer, but he has fattened some sheep on them with good success. Hollow draining he has practised upon an extensive scale, and laid a large tract of wet land dry by it.

MR. OLIVER planted a colony of palatines 15 years ago, from about Rathkeal, 66 families in one year, which made 700 protestants, on his own estate. Fixed them upon spots, of from 13 to 30 acres each, charging them only two-thirds of the rent which he could get of others; built houses for them at the expence of above 500l. gave them leases for three lives. The benefit has been introducing much tillage;

lage; in proportion to their little farms, they till much more than the Irish. They drill their potatoes, and on stubble land worn out. House their cattle, feeding them with hay, and raising thereby dung. They are cleaner and neater, and live much better; are better cloathed, and all of them have neat little kitchen gardens. Many of them labour for nobody but themselves, and none of them constantly for others, being employed principally on their own farms. They live partly on four crout.

C A S T L E O L I V E R is a place almost entirely of Mr. Oliver's creation; from a house, surrounded with cabbins and rubbish, he has fixed it in a fine lawn, surrounded by good wood. The park he has very much improved on an excellent plan; by means of seven feet hurdles, he fences off part of it that wants to be cleaned or improved, these he cultivates and leaves for grafs, and then takes another spot, which is by much the best way of doing it. In the park is a glen, an English mile long, winding in a pleasing manner, with much wood hanging on the banks. Mr. Oliver has conducted a stream through this vale, and formed many little waterfalls in an exceeding good taste, chiefly overhung with wood, but in some places open with several little rills trickling over stones down the slopes. A path winds through a large wood and along the brow of the glen; this path leads to an hermitage, a cave of rock, and to some benches, from which the views of the water and wood are in the sequestered stile they ought to be. One of these little views, which catches several falls under the arch of the bridge, is one of the prettiest touches of the kind I have seen. The vale beneath
the

the house, when viewed from the higher grounds, is pleasing; it is very well wooded, there being many inclosures, surrounded by pine trees, and a thick fine mass of wood rises from them up the mountain side; makes a very good figure, and would be better, had not Mr. Oliver's father cut it into vistas for shooting: Upon the whole, the place is highly improved, and when the mountains are planted, in which Mr. Oliver is making a considerable progress, it will be magnificent.

IN the house are several fine pictures; particularly five pieces by Seb. Ricci, Venus, and Æneas; Apollo and Pan, Venus and Achilles; and Pyrrhus and Andromache, by Lazzerini; and the rape of the Lapithi, by the centaurs: the last is by much the finest, and is a very capital piece; the expression is strong, the figures are in bold relief, and the colouring good. Venus and Achilles is a pleasing picture; the continence of Scipio is well grouped, but Scipio, as in every picture I ever saw of him, has no expression. Indeed, chastity is in the countenance so *passive* a virtue as not to be at all suited to the genius of painting; the idea is rather that of insipidity, and accordingly Scipio's expression is generally insipid enough. Two fine pieces, by Lucca Jordano, Hercules and Anteus; Sampson killing the lion: both dark and horrid, but they are highly finished and striking. Six heads of old men, by Nogari, excellent; and four young women, in the character of the seasons.

OCTOBER 9th, left Castle Oliver. Had I followed my inclination, my stay would have been
much

much longer, for I found it equally the residence of entertainment and instruction. Passed through Kilmennan and Duntreague, in my way to Tipperary. The road leads every where on the sides of the hills, so as to give a very distinct view of the lower grounds; the soil all the way is the same sort of sandy reddish loam I have already described, incomparable land for tillage: as I advanced, it grew something lighter, and in many places free from gravel. Bullocks the stock all the way. Towards Tipperary I saw vast numbers of sheep, and many bullocks. All this line of country is part of the famous golden vale. To Thomas Town, where I was so unfortunate as not to find Mr. Mathew at home; the domain is 1500 English acres, so well planted, that I could hardly believe myself in Ireland. There is a hill in the park, from which the view of it, the country and the Galties, are striking.

To the Earl of Clanwilliam's, where I was particularly fortunate in meeting Messrs. Macarthy and Keating, sons to two of the greatest farmers that ever were in Ireland. The country is all under sheep, and the soil dry sandy loam. The sheep system of Tipperary is to breed and keep the lambs till three-year old weathers, fat, and sell them at 26s. at an average; keep the ewe lambs, and cull the old stock, selling an equal number of fat ewes at three to four years old, the average price 20s. in October the wool of all the stock in general amounts to three fleeces, per stone, of 16lb. or 6s. a head. From hence to Clonmell there are many sheep; to Cullen in Kilkenny, three or four miles beyond

Thurles,

Thurles, within two miles of Cullen, three or four and twenty miles N. to S. and from Cullen to within three miles of Callen, which is 30: generally speaking, this is all sheep, but there are many spots in it where bullocks are fed. The stock mixed with sheep are usually calves, bought in at six to eight months at 30s. to 40s. average 32s. and when they are three years old, send them to the richer lands in the county of Limerick, (where every Tipperary grazier has a farm) to fat. When they have not enough of their own rearing, they buy three-years old at Ballynasloe, and fatten them in Limerick. In general, this land will carry three to five sheep to the acre, and bear some calves besides. One acre and three quarters carry a bullock the year through, half an acre of it for hay.

Arrangement of a flock of 2,500 sheep.

500 ewes
 500 lambs
 500 hoggarts
 500 two-year old
 250 fat weathers
 250 ewes, added to stock, instead of 250 older ones
 — fold off
 2500 at 5 to an acre 500 acres

	£.	s.	d.
250 fat wethers, at 26s. - - -	324	18	0
250 culled ewes, at 20s. - - -	250	0	0
2000 fleeces, at 6s. - - -	600	0	0
	<hr/>		
	1174	18	0
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A part

A part of the stock of fat wethers is kept over from october to the spring, for the Dublin market, not merely for the high price, but because underlings, and not fat in autumn, and sell for less than the rest, seldom more than 19s. or 20s. To 3000 sheep a grazier in this neighbourhood has 30 acres of turnips, in order to feed this part of his wether stock. Mr. Macarthy with 8000 sheep, has seldom more than 30 acres. This system will be further explained by Mr. Allen's stock,

1,200 acres — 2,000 sheep, besides lambs — Sells 200 four-year old wethers, at 26s. — 200 three-year olds, at 26s. — 200 barren ewes, at 18s. — 2,000 fleeces, at 5s. — 400 two-year olds — 400 year olds — 500 brood ewes — 500 lambs — Land to feed this flock, 1000 acres. Also 120 bullocks — 40 cows and spayed heifers and working bullocks for work, milk and breeding — 30 horses, mares, &c. — 30 labourers, 5 shepherds — 20 acres of wheat — 10 barley — 10 oats — 10 turnips — 8 potatoes — 60 mowing ground — Rent of this large tract of sheep-land from 20s. to 25s. an acre.

FARMS are generally large, commonly 3 or 4000 acres, and rise up to 10,000, of which quantity there is one farm, Mr. Macarthy's, of Spring-house, near Tipperary, and is I suppose the most considerable one in the world. Here are some of the particulars of it :

9,000 acres in all — 10,000l. rent — 8,000 sheep — 2,000 lambs — 550 bullocks — 80 fat cows — 20,000l. value of stock — 200 yearlings — 200 two-year

olds—200 three-year olds—80 plough bullocks—
180 horses, mares and foals—150 to 200 labourers—
200 acres tillage.

MR. RICHARD DOGHERTY, of Locklogher, sold
76 bags of wool at 500lb. to 600lb. each this year.
The loss of sheep and cattle one-half per cent. No
folding. For hiring and stocking 5l. an acre. A
shepherd is allowed four cows, a horse, a cabin,
and three acres of garden, and as much hay as they
like for their cattle.

SLAUGHTER at Corke of cows and bullocks un-
doubtedly lessened. The increase of tillage is in
Tipperary owing to bolting mills.

THE quantity of tillage in this country trifling,
but the crops are large; there are several courses.
The turnip husbandry often upon burnt land, some
on lime and fallow, and some on fallow alone.

1. Turnips. 2. Fallow. 3. Wheat. 4. Oats.
5. Oats. 6. Oats. 7. Oats. 8. Oats. 9. Oats.
10. Lay it out.

1. Turnips. 2. Fallow. 3. Potatoes. 4. Bere.
5. Wheat. 6. Oats. 7. Oats. 8. Oats. 9. Oats.

1. Burn for rape seed. 2. Potatoes. 3. Wheat.
4. Oats. 5. Oats. Lay out. And sometimes they
take two crops of wheat. They never hoe turnips.

MR. DEXTER, of Cullen, has a ram, half a guinea
a leap, and great numbers of ewes were sent to him,
the breed much improving.

PRODUCE

PRODUCE of potatoes 80 to 100 Bristol barrels, at 5s. average price, and the poor people pay five to six guineas for the land. They often take two crops with adding some seed, paying the same price for the second; the same for turnip land burnt; grass potatoes not generally known. The quantity of wheat 10 barrels to 15.—Bere 15 to 18.—Barley 12 to 18.—Oats 12 to 15. Their turnips they seldom sow before the 12th of July. Their manures are lime and lime-stone gravel; the gravel for crops, and lime for grass; they use it on lime-stone land, and with great success. The soil a mellow, dry sandy, or gravelly loam, on lime-stone or lime-stone gravel. Much bog in this country, that of Allen comes in a line through the Queen's County to within three miles of Cashel. One-fifth of Tipperary mountain, the rest 20s. an acre. Land sells at 20 years purchase. Rents have fallen four or five shillings an acre since 1771 and 1772.

PRICE OF CATTLE.

YEARLING bullock, 3l. to 3l. 10s. Store bullock, 6l. to 7l. Fat ditto, 10l. to 12l. Profit on a bullock, 4l. to 4l. 10s. A bullock fat of ten guineas, weighs 6cwt.

NEWTOWN, 250 acres, a farm of Mr. Dogherty's, under bullocks from may to november, and 1100 lambs all winter through.

I HAD heard much of the late Mr. Keating's farm, of Garranlad, as the largest that ever was; his son gave me the following particulars of it:

10,000l. a year rent. 13,800 Irish acres. 3,000 head of black cattle. 16,300 sheep. 300 horses. 500 couple of ducks. 300 turkies. 90 hogshheads of cyder a year. He had most of the ground from Golding to Clonmel. Collops here in order are: 1 horse. 6 sheep. 1 cow. 1 fat bullock. 2 yearlings. 3 calves.

To Cullen, Newtown, Palace, Carrick on Liff, rent 30s. an acre. Respecting the state of the poor in this country they are paid by a cabin, and one acre and a half of land, for which they are reckoned 4l. and for grass of a cow 2l. 2s. They live upon potatoes and milk; generally have cows, but not all, and those who have not buy, but very many of them have for the half year, only potatoes and salt. They all keep pigs. They are just as they were 20 years ago. Prices, wheat 1s. 1d. per stone. English barley, 10d. Oats, 6d. Bere, 7d. Hay, 1l. 2s. 9d. a ton.

RAPE is very commonly sown upon burnt land; they never feed it, but let it stand for seed, of which they get 12 to 15 barrels, and it sells at 16s. a barrel. Burning I should explain, is only the remaining turf after two ploughings, the first in november, and after christmas a cross ploughing; harrow in march, and burn in may.

ACCOMPANIED Lady Clanwilliam in a drive thro' her plantations; she has planted a broad margin for several miles round a domain (which his Lordship walled in with intention of building) and done it with equal taste and success. The attention she has given to this rational amusement, and the sensible and agreeable

agreeable manner in which she renders every tree interesting by her description and remarks, are formed to set off a female character in a light at least as respectable and as amiable as the most brilliant exhibition that a capital can witness. The twig which she plants with her hand, and nourishes by her care, will not disappoint her in the pleasure she expects; it will thrive with her attention, and greet her with its friendly shade; when will Dublin prove as grateful?

OCTOBER 12th, to Lord de Montalt's, at Dundrum, a place which his Lordship has ornamented in the modern stile of improvement: the house was situated in the midst of all the regular exertions of the last age. Parterres, parapets of earth, straight walks, knots and clipt hedges, all which he has thrown down, with an infinite number of hedges and ditches, filled up ponds, &c. and opened one very noble lawn around him, scattered negligently over with trees, and cleared the course of a choaked up river, so that it flows at present in a winding course through the grounds. He continues this work of dressing the fields contiguous to him, to give them a neat appearance, and advances in it every year: even his tillage lands are all kept in the same neat manner, with fences new done, and the whole carrying the most cultivated appearance.

His Lordship's system of husbandry is an admirable one; it is in the great outline to take farms into his own hands, as the leases expire, to keep them for improvement, and when done to relet them. This is the true agriculture for profit for a landlord: he has upon this system improved near 2000 acres.

Throwing down the old miserable fences, which split the farms into little scraps of fields, and made new ditches for drains and water-courses, disposed the new fields to the best advantage, drained them with stone drains where wet, broke up such of the grass as was bad, cultivated it enough to bring it into proper order, and laid it down again to meadow; there cannot be a better system, or more calculated at the same time to ornament a country, and improve his own estate.

His Lordship has also followed several practices in farming, which have proved of great service; among others, keeping hogs upon clover. He had a mind to shew the countrymen that they might keep many hogs (a very advantageous stock to them) by means of clover; he kept four sows and twenty-four pigs the summer through on one acre, by which he made 10l. produce. A clear proof that the husbandry would be highly advantageous with this view.

TURNIPS he cultivates upon a very large scale; was the first who had them here on stubbles; he has 30 or 40 acres, and every year has a large quantity; drills them with a very cheap simple drill, his own invention, and thins them out by hand, or hoes them. I viewed his crop, and found them very regular, and of a good size; the leaves of the whole of a remarkable deep green, without any yellow ones: more so, I think, than is common in England, and I observed the same circumstance with the other crops I saw. He uses them for feeding and fattening sheep, giving them on dry grass land; also for stall-feeding bullocks, and finds the advantage of both
uses

uses so great, that he does not know what he should do without them.

In the winter management of his cattle, he proceeds on very different principles from what is common in Ireland; instead of feeding them abroad, and for that purpose stacking the hay about the fields, he ties them up in stalls, of which he has many, and is erecting more: he ties up above 100 head, in which he finds the greatest advantage, both in the cattle, saving food, and yielding dung. The breed of sheep he has begun to change, from the long-legged Tipperary to the short legs of Leicestershire; has several tups of that breed, and finds that the change is of the highest consequence. Folding he has practised with the greatest success. The breed of hogs he has also changed to the Berkshire, and has one of the finest boars of that breed I have seen.

CABBAGES he cultivated for several years; but finds them burst too soon to be of considerable use; turnips much better: but Reynolds's turnip-cabbage he finds excellent for late spring food; has eight acres of very fine ones this year, which cost him just 20l. labour of manuring included.

LORD DE MONTALT keeps 2000 acres in his hands, 1500 sheep, 40 plough bullocks, 12 cows, &c. His Lordship, for the purpose of draining his clay lands, ploughs and shovels them up into broad highlands, so as to form regular segments of circles, in the manner practised in some counties in England; he does this that the furrows may be drains to the land, for French drains will not run, owing to the stiffness of the clay. He has not much of this land,

however; for in general his soil is the rich reddish sandy loam of the golden vale. He does much of his ploughing with the plough of Warwick and Shropshire, and finds it answers very well.

THE mountain lands of Tipperary one-seventh of the county, the rest lets at 20s. an acre on an average. There is some woollen manufactory scattered through it, especially at Thurles, Tipperary, Clonmel, &c. Mr. John Fenning, near Colchin, employs 30 combers. The year's purchase of land 20, was 25 some years ago. The fall owing partly to the expectation of an absentee land-tax,

OCTOBER 13th, leaving Dundrum, passed through Cashel, where is a rock and ruin on it, called the rock of Cashel, supposed to be of the remotest antiquity. Towards Clonmel, the whole way through the same rich vein of red sandy loam I have so often mentioned; I examined it in several fields, and found it to be of an extraordinary fertility, and as fine turnip land as ever I saw. It is much under sheep; but towards Clonmel there is a great deal of tillage.

The first view of that town backed by a high ridge of mountains, with a beautiful space near it of inclosures, fringed with a scattering of trees, was very pleasing. It is the best situated place in the county of Tipperary, on the Sure, which brings up boats of ten tons burthen. It appears to be a busy populous place, yet I was told that the manufacture of woollens is not considerable. It is noted for being the birth-place of the inimitable Sterne. Within two miles

of

of it is Marlesfield, the seat of Stephen Moore, Esq; celebrated in Ireland for his uncommon exertions in every branch of agriculture. It was not without the greatest concern that I found him absent. Seeing this gentleman however in London afterwards, he was kind enough to favour me with the following particulars:

His mill was built seven years ago, and cost 15,000l. the wages of the millers, including candles, coals, soap, tallow, &c. 7 or 800l. a year: it contains nine pair of stones for wheat, and four for oat-meal: it has a very complete apparatus for sifting, cleaning, &c. and granaries of uncommon magnitude, holding 10,000 barrels: began to be worked with only 3000 barrels of wheat in a year, which has risen gradually to 20,000 barrels in 1776, a very strong proof of the great increase of tillage in that neighbourhood. Very much of it is between Clonmel and Cashel, in which tract there was formerly more sheep in one parish, than now in three; also much in the Corke road to Cloheen, but no mountain-heath ground improved. The change has been from sheep and bullocks. He has a prospect of doing yet more, and at the same time that other mills have been erected that grind much, perhaps the whole is not short of 40,000 barrels. The farmers do not bring their wheat from a greater distance than 16 miles. Mr. Moore finds it necessary to kiln-dry all. I mentioned to him the bad colour of all the wheat in his own, and every other mill in Ireland, he attributed it only to wet harvests. He sends his flour to Dublin, on the bounty, which rather more than pays the expence of carriage. Never exports on his own account, but sends a little to Waterford. It goes

goes to Dublin in cars, which takes each eight to ten cwt. that is from four to five bags. He used to pay 3s. a cwt. in winter, and 3s. 6d. in summer for 84 miles, but now the price is 2s. 6d. in summer, and 3s. in winter. Mr. Moore tried English broad-wheeled waggons, with high priced strong horses, but they did not answer at all: he has found the cars to carry much greater loads.

He has not found that the premium has overstocked the Dublin market, which he attributes to there being an export from Dublin, notwithstanding such exported corn receives no bounty. The bran Mr. Moore applies to breeding and fattening hogs, contrary to the practice of most other mills, who having tried it, have given that practice up. He has thirty breeding sows and six hundred pigs, which are fed and fattened entirely on it, and the fat is firm and good. The price of bran is 1s. 1d. the six stone, and the hogs answer so well, that he would contract for other bran to be delivered him at that price, in order to use it in this manner. He does not depend entirely on breeding his own, but buys many stores. He is entirely in the Berkshire breed, which he finds much superior to the Irish. I observed his hogs, and thought them very fine ones. His sows bring three litters each, seven pigs on an average, in a year and a quarter; sells them at half a year to two years old, putting them to fat as soon as they have done growing; but when there is a great demand, fats them young. The average fat pig, two cwt. at from 20s. to 30s. a cwt. medium 25s. The dung is a considerable profit; he finds it beyond any other. He has given bran also to fattening store cattle, having built stalls for that purpose; gives them hay till when near fat, then

then leaves off the hay. His working horses are fed on bran entirely, no oats.

Mr. Moore contracts for biscuit, which he bakes in large quantities, and bread for the whole town of Clonmell. He has eight ovens going for biscuit. Starch he also makes large quantities of. Adjoining his flour mill, he has erected a rape mill, for making oil; the seed is all raised in the neighbourhood. The cake sells at 48s. a ton, and is exported, some to Holland, but most to England, for manure. He has tried feeding beasts with it, but it will not do at all: they would have died. This fact has long been known in England. It is the cake of lint seed that fattens. We have, however, very florid writers of *this* age, who speak of oxen fattening on *rape* cake as a common thing.

Mr. Moore's husbandry is also worthy of considerable notice. His principal attention has been given to cattle; seventeen years ago he imported Leicestershire rams, Northampton stallions, and a Craven bull from England, and has at different times since had bulls from Bakewell and others, and has himself sold yearling bull calves, from 10l. to 30l. a piece, and rams from 10l. to 40l. Long experience has told him that the long horned Craven breed of cattle is preferable to any other. I enquired particularly into the quantity of milk, because the common objection is their not giving much. Sir William Osborne, as well as Mr. Moore, assured me that he had seen one of them milked, and the milk measured seventeen quarts at one meal; but the average six to ten quarts at a meal, which is neither better nor worse than the common cows of the country: but the milk is much better

308 MOUNTAIN IMPROVEMENT.

better and thicker, and yields more butter than that of the Holderness. I examined his bulls, cows, and oxen, with attention; he has a bull which deserves every commendation for shape; and three or four out of six or seven prime cows I saw, were very beautiful ones.

OF sheep he keeps 1000, that is 200 ewes, 200 year-olds; 200 two-year olds; 200 barren ewes, and 200 lambs. He sells every year 200 two-year old fat wethers, and 100 barren ewes; the wethers in october, at 28s. and the ewes in the spring, at 25s. His fleeces are 7 lb. each on an average, at 1s. per lb.

TURNIPS he has cultivated for some years, up to 30 acres in a year, broad cast, has not hoed, from finding them very good without. He both draws and feeds on the land. He has had cabbages also, but never more than two acres, finds them more expensive, but do not go so far as turnips,

To Sir William Osborne's, three miles the other side Clonmell. From a character so remarkable for intelligence and precision, I could not fail of meeting information of the most valuable kind. This gentleman has made a mountain improvement which demands particular attention, being upon a principle very different from common ones.

TWELVE years ago he met with a hearty-looking fellow of forty, followed by a wife and six children in rags, who begged. Sir William questioned him upon the scandal of a man in full health and vigour, supporting himself in such a manner: the man said he could get no work: *Come along with me, I will shew*

show you a spot of land upon which I will build a cabin for you, and if you like it you shall fix there. The fellow followed Sir William, who was as good as his word: he built him a cabin, gave him five acres of a heathy mountain, lent him four pounds to stock with, and gave him, when he had prepared his ground, as much lime as he would come for. The fellow flourished; he went on gradually; repaid the four pounds, and presently became a happy little cottar: he has at present twelve acres under cultivation, and a stock in trade worth at least 80*l.* his name is John Conory.

THE success which attended this man in two or three years, brought others, who applied for land, and Sir William gave them as they applied. The mountain was under lease to a tenant, who valued it so little, that upon being reproached with not cultivating, or doing something with it, he assured Sir William, that it was utterly impracticable to do any thing with it, and offered it to him without any deduction of rent. Upon this mountain he fixed them; gave them terms as they came determinable with the lease of the farm, so that every one that came in succession had shorter and shorter tenures; yet are they so desirous of settling, that they come at present, though only two years remain for a term.

IN this manner Sir William has fixed twenty-two families; who are all upon the improving hand, the meanest growing richer; and find themselves so well off, that no consideration will induce them to work for others, not even in harvest: their industry has no bounds; nor is the day long enough for the revolution of their incessant labour. Some of them bring

turf

510 MOUNTAIN IMPROVEMENT.

turf to Clonmell, and Sir William has seen Conory returning loaded with soap ashes.

He found it difficult to persuade them to make a road to their village, but when they had once done it, he found none in getting cross roads to it, they found such benefit in the first. Sir William has continued to give them whatever lime they come for, and they have desired 1000 barrels among them for the year 1776, which their landlord has accordingly contracted for with his lime-burner, at 11d. a barrel. Their houses have all been built at his expence, and done by contract at 6l. each, after which they raise what little offices they want for themselves.

Sir William being prejudiced against the custom of burning land, insisted that they should not do it, which impeded them for some time; but upon being convinced that they could not go on well without it, he relaxed, and since that they have improved rapidly. He has informed them, that upon the expiration of the lease, they will be charged something for the land, and has desired that they will mark out each man what he wishes to have; they have accordingly run divisions, and some of them have taken pieces of 30 or 40 acres: a strong proof that they find their husbandry beneficial and profitable. He has great reason to believe that nine-tenths of them were white boys, but are now of principles and practice exceedingly different from the miscreants that bear that name. The lime Sir William gives them for the first breaking up, and the quantity they chuse is 40 barrels an acre, so that all the expence is 6l. for the house, and 1l. 16s. 8d. an acre for the land they improve. He has little doubt but they will take
the

MOUNTAIN IMPROVEMENT. 511

the whole mountain among them, which consists of 900 acres. Their course of tillage is,

1. Potatoes on the burning, generally *turks* (clustered) and great crops. 2. Rye. 3. Oats, and then leave it out.

THEIR cattle are feeding on the mountain in the day, but of nights they house them in little miserable stables. All their children are employed regularly in their husbandry, picking stones, weeding, &c. which shews their industry strongly; for in general they are idle about all the country. The women spin.

Too much cannot be said in praise of this undertaking. It shews that a reflecting penetrating landlord can scarcely move without the power of creating opportunities to do himself and his country service. It shews that the villainy of the greatest miscreants, is all situation and circumstance: EMPLOY, don't hang them. Let it not be in the slavery of the cottar system, in which industry never meets its reward, but by giving property, teach the value of it; by giving them the fruit of their labour, teach them to be laborious. All this Sir William Osborne has done, and done it with effect, and there probably is not an honester set of families in the county than those which he has formed from the refuse of the white boys.

SUPPOSE he builds a house to every twenty acres, and limes that quantity of land, the expence would be a few shillings over 40l. or 40s. an acre. If they pay him 2s. 4d. an acre for the land, he will make just 6l. per cent. for his money: a most striking proof

proof of the immense profit which attends mountain improvements of every kind, because instead of 2s. 4d. they would consider 6s. or 7s. as a rent of favour. 4s. 8d. is 12 per cent. for his money; 7s. is 18 per cent. Yet in spite of such facts do the lazy, trifling, inattentive, negligent, *slopping*, profligate owners of Irish mountains leave them, as they received them, from the hands of their ancestors, in the possession of grous and foxes. Shame to such a spiritless conduct!

ONE-THIRD of Waterford mountain at 6d. an acre, and two-thirds at 7s. Twenty miles on the coast in length, and eight or ten in breadth, is under dairies, of which the rent per acre is little known, farms being paid for by the cows they will maintain, at 50s. each. These dairies rise to 50 and even 100 cows. They all keep great numbers of hogs, which increase every day from the high price. The state of the poor people much better than formerly; they used to have one acre of potatoes, and the grass of one cow for their year's labour, and no more, and were much greater slaves than at present.

TILLAGE does not thrive in the county; it has, however, increased pretty much about Dungarvon, from whence there has been a tolerable export of corn; not only from its neighbourhood, but also from a distance, owing to the mobs of Clonmel and Carrick stopping corn going to Waterford, which has injured the latter town.

OCTOBER 15th, left New Town, and keeping on the banks of the Sure, passed through Carrick to Curraghmore, the seat of the Earl of Tyrone. This

line

line of country, in point of soil, inferior to what I have of late gone through : so that I consider the rich country to end at Clonmell. For the following account of the husbandry of the county of Waterford I am obliged to the attention of Lord Tyrone, who omitted no means of informing me accurately.

THAT county is divided into very large farms, and the renters of them keep cows generally, which they let to dairymen. One farmer, Mr. Peor, has 2000 cows, and pays 2000l. a year ; they rarely let more to one man than 50 cows, usually about 20 ; many of these men pay weekly, and others quarterly : the rent from 50s. to 3l. 5s. no such thing as horn-money. The dairyman's privilege is a house and two or three acres of land, or a horse and two cows in twenty. They make nothing but butter, and all keep hogs ; but do not feed them with milk, selling it all ; 1,300 to 1,500 churns full of milk, each eight gallons, goes into Waterford every day in the year, and a prodigious quantity to Carrick. The county is by far the greatest dairying one in Ireland. The breed is the common mountain cow, poor to look at, but great milkers, five or six pottles at a meal common. Price of them 5l. at an average. Average rent of all the land under cows, 10s. One-third of the county mountain, at 6d. the other two-thirds, at 10s. Along the blackwater, good land, and four miles round Waterford, 20s. or 25s. The quantity for a cow from two to four acres. They generally breed their own by rearing a few calves every year ; the young stock are kept on the mountains in summer, and in the worst of the low land in winter. They never feed their cows with any hay, except in very severe weather. No other stock.

314 CURRAGHMORE.

THE soils are various at this end of the county, clay and shingly slate, with a reddish mold upon it and gravelly loams. At the other end, they have lime-stone lands. They have, however, about Curraghmore lime-stone gravel of a stiff nature. Lime at the kiln 9d. a barrel; Lord Tyrone pays 1s. for the stone, and 2s. 8d. a barrel for the culm, and pays 2d. a barrel for breaking and burning, all which make 9d. Every barrel of culm gives seven of lime; a ton of stone produces four barrels of lime: the barrel four cubical feet. Not a thirtieth part of the country under the plough. The tillage consists only of little patches broken up by the cabbins; it has been increasing these 15 years: but the principal increase has been in ten years. The course of crops:

1. Potatoes. 2. Potatoes. 3. Barley, or oats. 4. Oats. 5. Oats: continued while the land yields. Wheat is coming in. Some who till large fields, do not take so many crops. About Dungarvon there are many potatoes planted, which are sent to Dublin in boats, with loads of birch brooms, and they are said to be loaded with *fruit* and *timber*. But in no part of the county do they plant grafts potatoes: they plant many of the bull or turk sort for their pigs, but they are reckoned an unwholesome sort for the people to feed on. Paring and burning land was common before the law passed against it, but of late very little. Upon the coast there is a great deal of sea weed and sea sand, especially beyond Dungarvon and Waterford. Flax is scarcely any where sown. The poor people feed on potatoes and milk; most of them have cows; many of them for a part of the year only salt to their roots: but they have oat bread when potatoes are not in season. They all keep pigs,
but

but never eat them. Their circumstances are in general greatly better than they were twenty years ago, both in food and cloathing; they have now all shoes and stockings, and are decently dressed every Sunday. No hats among the women, which I believe I have omitted to observe is the case all over Ireland. Their labour is valued, and they are paid the amount in land. The religion of the lower classes the roman-catholic.

EMIGRATIONS from this part of Ireland principally to Newfoundland, for a season; they have 18l. or 20l. for their pay, and are maintained, but they do not bring home more than 7l. to 11l. Some of them stay and settle; three years ago there was an emigration of indented servants to North Carolina, of 300, but they were stopped by contrary winds, &c. There had been something of this constantly, but not to that amount. The oppression which the poor people have most to complain of, is the not having any tenures in their lands, by which means they are entirely subject to their employers.

MANUFACTURES here are only woollens. Carrick is one of the greatest manufacturing towns in Ireland. Principally for ratteens, but of late they have got into broadcloths, all for home consumption; the manufacture increaseth, and is very flourishing. There are between three and four hundred people employed by it, in Carrick and its neighbourhood.

LORD Tyrone is clear that if his estate in Londonderry was in Waterford, or that all the inhabitants of it were to emigrate from it, so as to leave him to new model it, he would be able to get full one-third

more for it than he can do at present; rents in the north depending not on quality, but on price of linen.

THE rise in the prosperity of Ireland, about the year 1749, owing to the higher price of provisions, which raised rents and enforced industry. Butter now 9d. a lb. thirty years ago $2\frac{1}{2}$ d.

TYTHES are usually compounded for by the year through this county. Wheat pays 10s. Barley 10s. Oats 5s. Mowing ground, 4s. Sheep, 1d. each. Milk sells in summer for a halfpenny a quart; five quarts of butter-milk in summer for a halfpenny.

LORD Tyrone has improved 127 acres of hill, the soil reddish dry loam, on a flaty bottom, over-run with French and Irish furze, briars and bushes; he first grubbed them up at a guinea an acre: then he levelled an infinite number of old ditches and mounds, at 50l. expence, ploughed in winter, and second ploughed in may; then 200 barrels of roach lime per acre, spread, at 1s. a barrel. Upon this ploughed twice more; and sowed, part with wheat at michaelmas, and part with barley in spring. The crops 8 barrels an acre of wheat, and 18 of barley. After the wheat, barley and grass seeds were sown; the barley as good as the other; and upon the barley part oats were sown, the crop 15 barrels, and white clover and hay seeds. Before the improvement, it let at 10s. an acre; after the improvement, it would let readily at 25s. The grubbing the furze was not effectual, for 50l. has been since expended in grubbing up scattered ones. They are now completely destroyed; it is a very beautiful well-laid lawn, and

so good land, that the wool of the sheep alone that were kept there last year, without other food, and through the year, paid 20s. an acre for the whole. It would now feed 600 sheep through the year. Over 90 acres tined, with 250 barrels an acre, and fallowed, he had 17 barrels an acre of wheat. Eight years ago his Lordship stopped their burning land; but upon receiving many complaints of it, he sold them lime at 9d. a barrel, which cost him 1s. in order to make up the imaginary loss.

I had the pleasure of meeting at Lord Tyrone's, William Shanly, Esq; of Willyfield, in Leitrim, who informed me that he had twelve hundred stones per acre from a bad red bog, four feet deep of potatoes, drained to the clay at bottom; manured with lime-stone sand at 3l. labour, besides horses; also a common dunging, and immediately planted the potatoes, dug them, and sowed barley, 15 barrels an acre; then barley again 12 barrels; barley again 8 barrels, and grew too rank; laid it with grass seeds, could let it at 40s. an acre: answers so well, that he would have done any quantity. He planted with a plough 29½ stone of potatoes in rows, four feet asunder; the produce was 1,440 stone, the quantity of land about three rood. In the county Leitrim, four-fifths of it mountain, at 2d. or not so much; the remaining fifth, 6s. the mountains in Leitrim all a wet boggy surface.

CURRAGHMORE is one of the finest places in Ireland, or indeed that I have any where seen. The house, which is large, is situated upon a rising ground, in a vale surrounded by very bold hills, which rise in a variety of forms, and offer to the

eye, in riding through the grounds, very noble and striking scenes. These hills are exceedingly varied, so that the detour of the place is pleasing. In order to see it to advantage, I would advise a traveller to take the ride which Lord Tyrone carried me. Passed through the deer-park wood of old oaks, spread over the side of a bold hill, and of such an extent, that the scene is a truly forest one, without any other boundary in view than what the stems of trees offer from mere extent, retiring one behind another till they thicken so much to the eye, under the shade of their spreading tops, as to form a distant wall of wood. This is a sort of scene not common in Ireland, it is a great extent alone that will give it. From this hill enter an ever-green plantation, a scene which winds up the deer-park hill, and opens on to the brow of it, which commands a most noble view indeed. The lawns around the house appear at one's feet, at the bottom of a great declivity of wood, almost every where surrounded by plantations. The hills on the opposite side of the vale against the house, consist of a large lawn in the center of the two woods, that to the right of an immense extent, which waves over the mountain side, in the finest manner imaginable, and leads the eye to the scenery on the left, which is a beautiful vale of rich inclosures, of several miles extent, with the Sure making one great reach through it, and a bold bend just before it enters a gap in the hills towards Waterford, and winds behind them; to the right you look over a large plain, backed by the great Cummeragh mountains. For an extent of view, the parts of which are all of a commanding magnitude, and a variety equal to the number, very few prospects are finer than this.

FROM

From hence the boundary plantation extends some miles to the west and north-west of the domain, forming a margin to the whole of different growths, having been planted, by degrees, from three to sixteen years. It is in general well grown, and the trees thriven exceedingly, particularly the oak, beech, larch, and firs. It is very well sketched. Pass by the garden across the river, which murmurs over a rocky bed, and follow the riding up a steep hill, covered with wood from some breaks in which, the house appears perfectly buried in a forest, and come out, after a considerable extent of ride, into the higher lawn, which commands a view of the same scenery; and from the brow of the hill the water, which is made to imitate a river, has a good effect, and throws a great air of cheerfulness over the scene, for from hence the declivity below it is hid; but the view, which is the most pleasing from hence, the finest at Curraghmore, and indeed one of the most striking that is any where to be seen, is that of the hanging wood to the right of the house, rising in so noble a sweep as perfectly to fill the eye, and leave the fancy scarce any thing to add: at the bottom is a small semicircular lawn, around which flows the river, under the immediate shade of very noble oaks; the whole wood rises boldly from the bottom, tree above tree, to a vast height, of large oak, the masses of shade are but tints of one color, it is not chequered with a variety, there is a majestic simplicity, a unity in the whole, which is attended with an uncommon impression, and such as none but the most magnificent scenes can raise.

DESCENDING from hence through the roads, the riding crosses the river, passes through the meadow;

which has such an effect in the preceding scene, from which also the view is very fine, and leads home through a continued and extensive range of fine oak, partly on a declivity, at the bottom of which the river murmurs its broken course.

BESIDES this noble riding, there is a very agreeable walk runs immediately on the banks of the river, which is perfect in its stile; it is a sequestered line of wood, so high on the declivities in some places, and so thick to the very edge in others, overspreading the river, that the character of the scene is gloom and melancholy, heightened by the noise of the water falling from stone to stone; there is a considerable variety in the banks of it, and in the figures and growth of the wood, but none that hurts the impression, which is well preserved throughout.

OCTOBER 17th, accompanied Lord Tyrone to Waterford; made some inquiries into the state of their trade, but found it difficult, from the method in which the Custom-house books are kept, to get the details I wished; but in the year following, having the pleasure of a long visit at Ballycanvan, the seat of Cornelius Bolton, Esq; his son, the member for the city, procured me every information I could wish, and that in so liberal and polite a manner, that it would not be easy to express the obligations I am under to both. In general I was informed that the trade of the place had increased considerably in ten years, both the exports and imports. The exports of the products of pasturage, full one-third in 12 years. That the staple trade of the place is the Newfoundland trade; this is very much increased, there is more of it here than any where. The
number

number of people who go passengers in the Newfoundland ships is amazing; from 60 to 80 ships, and from 3000 to 5000 annually. They come from most parts of Ireland, from Corke, Kerry, &c. Experienced men will get 18l. to 25l. for the season, from march to november; a man who never went will have from 5l. to 7l. and his passage, and others rise to 20l. the passage out they get, but pay home 2l. An industrious man in a year will bring home 12l. to 16l. with him, and some more. A great point for them is to be able to carry out all their slops, for every thing there is exceedingly dear, 100 or 200 per cent. dearer than they can get them at home. They are not allowed to take out any woollen goods but for their own use. The ships go loaded with pork, beef, butter, and some salt: and bring home passengers, or get freights where they can; sometimes rum. The Waterford pork comes principally from the barony of Iverk in Kilkenny, where they fatten great numbers of large hogs; for many weeks together they kill here 3 to 4000 a week, the price 50s. to 4l. each; goes chiefly to Newfoundland. One was killed in Mr. Penrose's cellar, that weighed 54 cwt. and measured from the nose to the end of the tail, nine feet four inches.

THERE is a foundery at Waterford for pots, kettles, weights, and all common utensils; and a manufactory by Messrs. King and Tagent, of anvils, anchors to 20 cwt. &c. which employs 40 hands. Smiths earn from 6s. to 24s. a week. Nailors from 10s. to 12s. And another less considerable. There are two sugar-houses, and many salt-houses. The salt is boiled over lime-kilns.

THERE

THERE is a fishery upon the coast of Waterford, for a great variety of fish, herrings particularly in the mouth of Waterford harbour, and two years ago in such quantities there, that the tides left the ditches full of them. There are some premium boats both here and at Dungarvon, but the quantity of herrings barrelled is not considerable.

THE butter trade of Waterford has increased greatly for seven years past; it comes from Waterford principally, but much from Carlow; for it comes from 20 miles beyond Carlow, for 6d. per cwt. From the 1st of January, 1774, to the 1st of January, 1775, there were exported 59,856 casks of butter each upon an average, 1cwt. at the mean price of 50s. Revenue of Waterford, 1751, 17,000l. 1776, 52,000l. The slaughter trade is increased, but not so much as the butter. Price of butter now at Waterford, 58s. 20 years average 42s. Beef now to 25s. average 20 years, 10s. to 18s. Pork now 30s. average 20 years, 16s. to 22s. Eighty sail of ships now belonging to the port, 20 years ago not 30. They pay to the captains of ships of 200 tons, 5l. a month; the mate 3l. 10s. Ten men, at 40s. five years ago only 27s. Building ships, 10l. a ton. Wear and tear of such a ship, 20l. a month. Ship provisions, 20s. a month.

THE new church in this city is a very beautiful one; the body of it is in the same stile exactly as that of Belfast already described: the total length 170 feet, the breadth 58. The length of the body of the church 92, the height 40; breadth between the pillars 26. The isle is 58 by 45. A room on one side the steeple space for the bishop's court, 24 by

by 18; on the other side a room of the same size for the vestry; and 28 feet square left for a steeple when their funds will permit. The whole is light and beautiful: it was built by subscription, and there is a fine organ bespoke at London. But the finest object in this city is the quay, which is unrivaled by any I have seen; it is an English mile long; the buildings on it are only common houses, but the river is near a mile over, flows up to the town in one noble reach, and the opposite shore a bold hill, which rises immediately from the water to a height that renders the whole magnificent. This is scattered with some wood, and divided into pastures of a beautiful verdure, by hedges. I crossed the water, in order to walk up the rocks on the top of this hill; in one place, overagainst Bilberry quarry, you look immediately down on the river, which flows in noble reaches from Granny Castle on the right past Cromwell's Rock, the shores on both sides, quite steep, especially the rock of Bilberry. You look over the whole town, which here appears in a triangular form; besides the city, the Cummeragh mountains, Sleinaman, &c. come in view. Kilmacow river falls into the Sure, after flowing through a great extent of well planted country; this is the finest view about the city.

FROM WATERFORD to Passage, and got my chaise and horses on board the Countess of Tyrone packet, in full expectation of sailing immediately, as the wind was fair, but I soon found the difference of these private vessels and the post-office packets at Holyhead and Dublin. When the wind was fair the tide was foul; and when the tide was with them, the wind would not do; in English there was not a complement

plement of passengers, and so I had the agreeableness of waiting with my horses in the hold, by way of rest, after a journey of above 1500 miles.

OCTOBER 18th, after a beastly night passed on ship-board, and finding no signs of departure, walked to Ballycanvan, the seat of Cornelius Bolton, Esq; rode with Mr. Bolton, jun. to Faithleghill, which commands one of the finest views I have seen in Ireland. There is a rock on the top of a hill, which has a very bold view on every side down on a great extent of country, much of which is grass inclosures of a good verdure. This hill is the center of a circle of about ten miles diameter, beyond which higher lands rise, which after spreading to a great extent, have on every side a back ground of mountain: in a northerly direction, Mount Leinster, between Wexford and Wicklow, 26 miles off, rises in several heads, far above the clouds. A little to the right of this, Sliakeiltha (i. e. the woody mountain) at a less distance, is a fine object. To the left, Tory-hill, only five miles, in a regular form varies the outline. To the east, there is the long mountain, 18 miles distant, and several lesser Wexford hills. To the south-east, the Saltees. To the south, the ocean, and the colines about the bay of Tramore. To the west, Monavollagh rises 2160 feet above the level of the sea, 18 miles off, being part of the great range of the Cumma-ragh mountains; and to the north-west Slein-a-man, at the distance of 24 miles; so that the outline is every where bold and distinct, though distant. These circumstances would alone form a great view, but the water part of it, which fills up the canvas, is in a much superior stile. The great river Sure takes a winding course from the city of Waterford, through
a rich

a rich country, hanging on the sides of hills to its banks, and dividing into a double channel, forms the lesser island, both of which courses you command distinctly; united, it makes a bold reach under the hill on which you stand, and there receives the noble tribute of the united waters of the Barrow and the Nore, in two great channels, which form the larger island; enlarged by such an accession of water, it winds round the hill in a bending course, of the freest and most graceful outline, every where from one to three miles across, with bold shores, that give a sharp outline to its course to the ocean; 20 sail of ships at Passage, gave animation to the scene; upon the whole, the boldness of the mountain outline; the variety of the grounds; the vast extent of river, with the declivity to it from the point of view, altogether form so unrivalled a scenery—every object so commanding, that the general want of wood is almost forgotten.

Two years after this account was written I again visited this enchanting hill, and walked to it, day after day, from Ballycanvan, and with increasing pleasure. Mr. Bolton has, since I was there before, inclosed 40 acres on the top and steep slope to the water, and began to plant them. This will be a prodigious addition; for the slope forming the bold shore for a considerable space, and having projections from which the wood will all be seen in the gentle hollows of the hill, the effect will be amazingly fine. Walks and a riding are tracing out, which will command fresh beauties at every step; the spots from which a variety of beautiful views are seen are numerous. All the way from Ballycanvan to Faithleg, the

the whole to the amount of 1200 acres, is the property of Mr. Bolton.

FARMS about Ballycanvan, Waterford, &c. are generally small, from 20 and 30 to 500 acres, generally about 250, all above 200 acres are in general dairies; some of the dairy ones rise very high. The soil is a reddish stony, or stony gravel, dry, except low lands, which are clay or turf. Rents vary much, about the town very high, from 5l. 5s. to 9l. but at the distance of a few miles towards Passage, &c. they are from 20s. to 40s. and some higher, but the country in general does not rise so high, usually 10s. to 20s. for dairying land. The course of crops is,

1. Potatoes; the produce 40 to 80 barrels, 20 stones each.
2. Wheat; the crop 8 barrels, each 20 stones.
3. Oats; the produce from 10 to 14 barrels.
4. Barley; the crop 12 to 15 barrels, 16 stone each.
5. Lay it out; the better sort clover with the barley, and leave it for meadow.

1. Oats. 2. Wheat. 3. Oats. 4. Barley. One preparation is a slight burning of the furrows for wheat, after that wheat, they will sow barley, and then several crops of oats. Also,

1. Potatoes. 2. Wheat. 3. Wheat. 4. Barley.
5. Lay out.

1. Potatoes. 2. Potatoes. 3. Wheat. 4. Oats. 5. Barley. 6. Lay out. The second crop 10 barrels. Every house has a little patch of flax for making a little

a little bundle cloth, but the quantity is not considerable.

THE principal manure is a sandy marle they raise in boats on the banks in the harbour at low water; it is of a blueish colour, very soapy, and ferments strongly with acids: a boat load is 18 tons, and costs 6s. to 8s. a load. Most of it has shells. They lay it on for barley particularly, and get great crops, can in all see to an inch where spread. Sometimes it is laid on grass, and the effect uncommonly great, bringing up a perfect carpeting of white clover wherever laid. They lay five or six loads an acre, and the land is for ever the better. They repeat it on the same land, and with great effect. They make composts of it with lime, and also hedge earth with good success. Lime they use also; lay from 100 to 150 barrels roach to an acre, which has a very great effect. On the stiffer yellow clays it does better than sand, but laid on all sorts, and also on grass land with advantage. Sea sand they use for potatoes, but it does not last more than for that crop. Waterford dung, and street fulage, 42s. the boat load of 18 tons. Clover has been introduced these 12 years; Mr. Bolton has sown it for many years with great success, so that he never lays down land without it.

THE dairies are generally let at 2l. 5s. The dairyman's privilege to 40 cows is a cow and horse, and two acres and a cabin, and he is allowed to rear one calf in ten; 100 acres to 40 cows; they do not keep any hogs on account of cows. Price of cows, average 4l. to 5l. They are engaged to give two pottles each on an average, putting all the milk together.

528 B A L L Y C A N V A N.

together. Meadows let at 3l. to 4l. an acre for the hay.

THERE are few sheep kept, no great flocks. The poor people plough with four horses, sometimes six; gentlemen generally with spayed heifers or oxen. Land sells at 19 and 20 years purchase; it did sell at 23, and the fall has been owing to the failure of credit in 1771 and 1772.

TYTHES. Potatoes, Wheat, Barley, and Oats, 5s. to 6s. Cows, 2d. Sheep, 6d.

THE poor people spin their own flax, but not more, and a few of them wool for themselves. Their food is potatoes and milk; but they have a considerable assistance from fish, particularly herrings; part of the year they have also barley, oats and rye bread. They are incomparably better off in every respect than 20 years ago. Their increase about Ballycanvan is very great, and tillage all over this neighbourhood is increased. The rent of a cabin 10s. an acre with it 20s. The grass of a cow a few years ago 20s. now 25s. or 30s.

AN exceeding good practice here in making their fences is, they plant the quick on the side of the bank in the common manner, and then, instead of the dead hedge we use in England on the top of the bank, they plant a row of old thorns, two or three feet high, which readily grow, and form at once a most excellent fence. Their way also of taking in sand banks from the river deserves notice: they stake down a row of furzes at low water, laying stones on them
to

to the heighth of one or two feet; these retain the mud, which every tide brings in, so as to fill up all within the furze as high as their tops. I remarked on the strand, that a few boat loads of stones laid carelessly, had had this effect, for within them I measured 12 inches deep of rich blue mud left behind them, the same as they use in manuring, full of shells and effervesced strongly with vinegar.

AMONG the poor people, the fishermen are in much the best circumstances; the fishery is considerable; Waterford and its harbour have 50 boats, each from 8 to 12 tons, six men on an average but to one of six ton, five men go. A boat of eight tons costs 40*l*. one of twelve 60*l*. To each boat there is a train of nets of six pair, which costs from 4*l*. 4*s*. to 6*l*. 6*s*. tan them with bark. Their only net fishery is that of herrings, which is commonly carried on by shares. The division of the fish is, first one-fourth for the boat; and then the men and nets divide the rest, the latter reckoned as three men. They reckon 10 maze of herrings an indifferent night's work; when there is a good *take* 40 maze have been known, 20 a good night; the price per maze, from 1*s*. to 7*s*. average 5*s*. Their *take*, in 1775, the greatest they have known, when they had more than they could dispose of, and the whole town and country stunk of them, they re-tailed them 32 for 1*d*. 1773 and 1774 good years. They barrelled many; but in general there is an import of Swedish. Besides the common articles I have registered in tables, Pigeons, 1*s*. a couple. A hare, 1*s*. Partridges, 9*d*. Turbots, fine ones, 4*s*. to 10*s*. Soals, a pair, large, 1*s*. 6*d*. to 1*s*. Lobsters, 3*d*. each. Oysters, 6*s*. per hundred. Rabbits, 1*s*. to

1s. 4d. a couple. Cod, 1s. each, large. Salmon,
1½d. to 2d.

A VERY extraordinary circumstance I was told, that within five or six years there has been much hay carried from Waterford to Norway, in the Norway ships that bring deals; as hay is dear here, it proves a most backward state of husbandry in that northerly region, since the neighbourhood of sea-ports to which this hay can alone go, is generally the best improved in all countries.

MR. BOLTON has improved a great deal of waste land, that was under furze, heath and wood. He first grubbs it, which costs for the woody part, 3l. or 3l. 3s. and for the furze, 20s. Then levels all holes, &c. and clears it of rocks, at the expence of 20s. an acre. Upon this he dungs and plants potatoes in the trenching way upon a part, and upon the rest fallows and limes it, 100 to 150 barrels an acre, and sows wheat; produce seven to ten barrels an acre. Then sows it for oats or barley, 15 barrels of barley, and 12 of oats. In this way he has done 300 acres, which was not worth more than 5s. an acre: now lets at 30s. In making this very noble improvement, he divided the land into well proportioned fields, and surrounded them with very noble fences; double ditches, with a parapet bank between, planted on both sides with quick, and on the top with a double row of oak, elm, ash, or fir; many of these were planted 36 years ago; they are now in very great perfection, so thick and fully grown as to be impervious to the sight, and to take, when viewed at a distance, the appearance of spreading woods. Nothing could be done in a compleater manner,

manner, and the quantity over more than 300 acres, uniting with many orchards planted at the same time, give his domain and its environs a richness of landscape not common in Ireland. I could not help much admiring it when on the water, from some parts of the river the effect is very beautiful.

MR. BOLTON cannot be too much commended for the humane attention with which he encourages his poor cottar tenantry; he gives them all leases, whatever their religion, of 21 or 31 years, or lives: even the occupier of two acres has a lease. It is inconceivable what an effect this has had: this is the way to give the catholics right ideas. I was for three weeks a witness of a most spirited industry among them; every scrap of rough rocky land, not before improved, they were at work upon, and overcoming such difficulties as are rarely to be found on common wastes: many spots, not worth 3s. an acre, they were reclaiming to be well worth 25s. and 30s. The improvement of this part of Mr. Bolton's estate may be guessed at when I mention, that on only 500 acres of it, there have been built, in six years, 40 new houses, many of them handsome ones of stone and slate. For cabbins, barns, &c. he gives timber for the roofs.

IN 1751, Mr. Bolton being in England, and observing the cultivation of turneps for sheep, he introduced them on his return, and had hurdles made for penning sheep, doing it with much success; after the same journey also, he introduced horse-beans for feeding his horses, mixed with oats: he did it for 20 years together, and with the greatest advantage. Turnep cabbage he has tried also for sheep, and

found them to do exceedingly well. One turnep cabbage sown the beginning of april, and not transplanted, weighed 13lb. top and bottom. An experiment on carrots I viewed, of which Mr. Bolton, junior, has since favoured me with the following account.

“ WHEN you were here, I shewed you a few beds of carrots, which were pulled the beginning of this month; I measured the ground, and when the carrots were cleaned and topped, I saw them weighed. The ground measured 15 perches, plantation measure, which produced 36 hundred and six stone of carrots, besides allowing 4lb. to every hundred for dirt, though they were very clean and dry. The produce is 156 barrels, and 16 stones to an acre, (20 stones to the barrel) and beyond any thing I could have imagined; and I am certain, had the carrots been hoed and thinned as they ought, the product would have been much greater. The tops were given to pigs; they seemed to like them better than any thing else. These 15 perches are part of a field, which, in 1774, had been highly manured with dung for potatoes. In 1775, the roots of the weeds (of which there were a great quantity, particularly couch-grass and crow-foot) were burned, and the ashes and some blue sand spread, and it was sown with turneps. The latter end of march, these 15 perches were dug, and about the 16th of april sown with a pound of carrot seed; they were twice hoed, to destroy the weeds which came up very thick.”

In the winter of 1775, Mr. Bolton fed 10 working horses on bull potatoes, twice a day on oats, and
once

once on potatoes; the potatoes given always at night; the quantity to each horse $1\frac{1}{2}$ peck of small ones; and at the other two feedings, half a peck each of oats. He found that they fattened the horses very much, and did exceeding well on them. Value of the potatoes 3s. a barrel. The culture of rape and turneps has been tried in this neighbourhood also by Mr. James Wyse, merchant, of Waterford. In the beginning of June, 1774, Mr. Wyse ploughed lightly with a winged plough, and burned the surface of near four acres of land, which had not been tilled for many years. He spread the ashes, and manured the ground with 12 boat loads of the blue sand, which is taken from the banks of the river at low water, each boat load containing 20 tons. Then ploughed and harrowed it once; and such of the clods as were not thoroughly burned and pulverized after harrowing, he turned with the grassy side down to hinder their growing. About the middle of august he sowed with rape; a little more than half a bushel to an acre. It was cut the latter end of june, 1775, and produced 48 barrels, of 16 stones to the barrel, which sold for 16s. per barrel, and the straw to a tallow-chandler to burn for ashes, for 48s. The straw, or haulm of rape, is sold for 12d. for each barrel of seed it produced. The beginning of july, 1775, Mr. Wyse ploughed and harrowed the ground; about the 20th of july sowed it with turneps, which on their coming up were immediately destroyed by the fly. About the middle of august harrowed the ground, and sowed turneps again, which were also destroyed by the fly. Mr. Wyse imagines the great number of flies were occasioned by the oiliness and richness of the ground, (caused by the putrefaction of the leaves and blossoms of

of the rape) and the moisture and warmth of the weather. About the middle of october, the grass came up so rich and luxuriant, (though not sown with grass seed) that Mr. Wyse would not suffer it to be ploughed for tillage, as he had intended. The latter end of june, 1776, mowed it, and it produced three tons of hay per acre; sold for 34s. per ton. The sand and carriage of it cost about 30s. per boat load; ploughing, burning, harrowing, sowing, cutting, &c. about four guineas per acre. Rent of the land 30s. an acre. In 1775 Mr. Wyse ploughed seven acres, which he prepared in the same manner (except sanding) and sowed it with rape; it grew very well till the great frost and snow fell, which was remarkably severe, and which injured it very much, together with the moisture of the ground, occasioned by springs in the land, and heavy rains, which succeeded the frost and snow; the produce per acre, about half the quantity of the former year; sold at the same price. Mr. Wyse recommends narrow ridges for low moist ground. He thinks a large quantity of ashes to be a chief means of ensuring a plentiful crop. The land does not require manure after rape for wheat, barley, oats, potatoes, &c. but will not answer for a second crop.

MR. BOLTON, junior, having mentioned a neighbour of his, who had drawn up a memoir upon making cyder, from considerable experience, at my request wrote to him for a copy of it, which I have since received, with his permission to insert it in this work.

The

The following is an abridgement of the account.

“LET apples of every species hang till they are ripe, and begin to drop; let them be gathered perfectly dry, and if convenient in the heat of the day, when warmed in the sun; when gathered let them lie in heaps for one, two, three, or four weeks, according to their degrees of firmness, so as to undergo a moderate fermentation; let the moisture be carefully wiped off, and each species separated (if the quantity of fruit in your orchard be sufficient to admit it) and then ground in a mill, or pounded in troughs; but the first the best method, because less of the pulp is broke, and the liquor will flow clearer from the bags; by pressing the fruit of each distinct species so separated, the cyder will undergo one uniform fermentation.

“WHEN the fruit are sufficiently broke for pressing, let them lie 48 hours before they be pressed; this will add to that deep richness of colour, which to the eye is pleasing in cyder; then let the fruit so broke, having stood 48 hours, be pressed in hair cloth bags; as the juice is thus pressed out, let it be poured into large vessels, usually called keeves, to undergo the fermentation; three of these vessels are necessary in every orchard, one to contain the liquor in its state or course of fermentation, while a second is filling from the press, and the third to contain the pummage before it be pressed; three keeves, containing five or six hogsheds each will serve for an orchard that yields 60 or 70 hodsheds of cyder. The expence of these vessels made of double boards, hooped with iron, or strong ash hoops, will not be very considerable;

derable ; if the weather should prove cold, the fermenting keeves should be covered with bags, &c. in order to quicken the fermentation, which will be compleated in six or seven days if the weather be temperate, provided no new or unfermented cyder be put into the keeve, which above all things should be carefully avoided ; when the fermentation is over, the liquor will be fine, and should then be racked off into very clean hogsheds, smoaked with brimstone matches ; the hogsheds should not be bunged or stoppt close till all symptoms of fermentation cease ; and in three weeks or a month it should be a second time racked, still observing to smoak the hogsheds with brimstone, then the hogsheds should with the greatest care be very closely stopp'd ; the keeves must be entirely emptied before the new pressed cyder is poured into them. The great secret in making good cyder, is to prevent or mitigate its fermentations, the first excepted ; and nothing will so effectually do this, as repeated racking from the foul lee. Do not press wildings till candelmas, or until they begin to rot ; and when the juice is pressed out, let it be boiled in a furnace for one hour, before it be suffered to work or ferment, and that will greatly soften the acrimony of its juice."

MR. WILLIAM ATKINSON, of Mount Wilkinson, near Ballycanvan, seems to be very attentive to the orchard husbandry ; from two acres he had 21 hogsheds of cyder, and the same year reaped 20 barrels of wheat under the trees, a produce little short of 50l. or 25l. an acre ; three and an half barrels of his apples (each six bushels) made a hogshed of cyder. A common practice here in planting orchards, is to
set

set cuttings, three or four feet long, half way in the ground, of the cackagee, jergonelle, or any set that grows rough and knotty in the wood; they call them *pitchers*, they rarely fail, and yield well and soon.

MR. BOLTON carried me to the houses of some fishermen on the harbour, one of whom had planted around his cabin for shelter, three years ago, some willow cuttings, the growth of which amazed me; I measured them 21 feet high, and not crooked or bending like common sorts, but straight as a fir. I took half a dozen cuttings with me to England, to compare it with the sorts common with us.

OCTOBER 19th, the wind being fair, took my leave of Mr. Bolton*, and went back to the ship; met with a fresh scene of provoking delays, so that it was the next morning, october 20th, at eight o'clock, before we sailed, and then it was not wind, but a cargo of passengers that spread our sails. Twelve or fourteen hours is not an uncommon passage, but such was our luck, that after being in sight of the lights on the Smalls, we were by contrary winds blown opposite to Arklow sands; a violent gale arose, which presently blew a storm, that

* Since the first edition of these papers, this worthy and patriotic friend to his country is dead; but Ireland has not a steadier friend than his son, the present possessor of Ballycanvan. Nowhere have I found more liberal sentiments, or a mind freer from every local prejudice. It is not without reason, that I am eager to seize every opportunity of doing justice to his merit. I have not found his hospitality to be a transient civility to a passing traveller, forgotten as soon as gone.

lasted

lasted 36 hours, in which, under a reefed mainsail, the ship drifted up and down wearing, in order to keep clear of the coasts.

No wonder this appeared to me, a fresh-water sailor, as a storm, when the oldest men on board reckoned it a violent one; the wind blew in furious gusts; the waves ran very high; the cabin windows burst open, and the sea pouring in set every thing afloat, and among the rest a poor lady, who had spread her bed on the floor. We had however the satisfaction to find, by trying the pumps every watch, that the ship made little water. I had more time to attend these circumstances than the rest of the passengers, being the only one in seven who escaped without being sick. It pleased God to preserve us, but we did not cast anchor in Milford Haven, till tuesday morning the 22d, at one o'clock.

It is much to be wished, that there were some means of being secure of packets sailing regularly, instead of waiting till there is such a number of passengers, as satisfies the owner, and captain; with the post-office packets there is this satisfaction, and a great one it is; the contrary conduct is so perfectly detestable, that I should suppose the scheme of Waterford ones can never succeed.

Two years after, having been assured this conveyance was put on a new footing, I ventured to try it again; but was mortified to find that the Tyrone, which was the only one that could take a chaise or horses, (the *Countess* being laid up) was repairing,
but

but would sail in five days; I waited, and received assurance after assurance that she would be ready on such a day, and then on another; in a word, I waited 24 days before I sailed; moderately speaking, I could, by Dublin, have reached Turin or Milan as soon as I did Milford in this conveyance. All this time the papers had constant advertisements of the Tyrone sailing regularly, instead of letting the public know that she was under a repair. Her owner seems to be a fair and worthy man, he will therefore probably give up the scheme entirely, unless assisted by the corporation, with at least four ships more, to sail regularly *with* or *WITHOUT* passengers; at present it is a general disappointment; I was fortunate in Mr. Bolton's acquaintance, passing my time very agreeably at his hospitable mansion; but those who, in such a case, should find a Waterford inn their resource, would curse the Tyrone, and set off for Dublin. The expences of this passage are higher than those from Dublin to Holyhead: I paid,

	£.	s.	d.
A four-wheel chaise	-	-	3 3 0
Three horses	-	-	3 3 0
Self	-	-	1 1 0
Two servants	-	-	1 1 0
Custom-house at Waterford, hay, oats, &c.	2	1	7
Ditto at Pembroke and Hubberston	-	3	0 0
Sailors, boats, and sundry small charges	1	15	5
			<hr/>
			15 5 0
			<hr/>

DIRECTIONS for placing the PLATES.

V o l. I.

The Waterfal - - - - - to front page 108

The Clay Kiln - - - - - 180

V o l. II.

The Irish Cabbin - - - - - to front page 122

The Irish Car - - - - - 156

The Lake. Appendix - - - - - 406



A four-wheel carriage
Three horses
Self
Two servants
Custom-house at Waterford, pay, cart, &c.
Dinner at P. O. and Habington
Sailors, boats, and sundry small charges

15. 5. 0

+

